1924

General Catalogue 1924

Utah State University

Agricultural College of Utah

BULLETIN

GENERAL CATALOG
1924-1925

With List of Students for 1923-24

Thirty-fifth Year

LOGAN, UTAH

Published by the College
July, 1924

AIRPLANE VIEW OF THE CAMPUS OF THE UTAH AGRICULTURAL COLLEGE OF LOGAN

Home Economics Building

Heating Plant

Smart Gymnasium

Farm Buildings

President's Residence

Chemistry Building

Experiment Station

Plant Industry Building

Animal Husbandry Building

Main Building

(See other side)

Mechanic Arts Building

Engineering Building

Auto Shop

R O. T. C. Garage

Airplane View of the Campus of the Utah Agricultural College

This view of the campus of the Utah Agricultural College indicates, in a measure, the extensive plant of the Institution. The names of the various structures indicate in part the many fields of education covered by the College curricula. In addition to the Schools of Agriculture and Home Economics, the College maintains strong vocational, undergraduate and graduate courses in the Schools of Engineering, Mechanic Arts, Commerce and Business Administration, Basic Arts and Science in the Department of Education.

The various buildings shown upon the airplane view house the following:

The Main Building

General Administrative Offices
Extension Division
Departments of:
- Accounting and Business Practice
- Agricultural Economics
- Art
- Business Administration
- Correspondence Studies
- Economics
- Education and Pedagogy
- English
- Entomology
- Geology
- History
- Horticulture
- Library Economy
- Marketing
- Mathematics
- Modern Languages and Latin
- Music
- Political Science
- Public Speaking
- Sociology
- Stenography and Typewriting
- Zoology

Mechanic Arts Building:

Departments of:
- Auto Mechanics
- Farm Mechanics
- Forging and General Blacksmithing
- Machine Work
- Mechanic Arts
- Woodwork and Housebuilding

Chemistry Building:

Departments of:
- Bacteriology and Physiological Chemistry
- Chemistry
- Physics
- Physiology
- Rural Public Health
- Rural Sanitation

Home Economics Building:

Departments of:
- Foods and Dietetics
- Household Administration
- Textiles and Clothing

Smart Gymnasium:

- Offices of Medical Advisor
- Men's Gymnasium
- Women's Gymnasium
- Swimming Pool and Showers
- Hand Ball Court
- Lockers for Men and Women
- Departments of Physical Education

Plant Industry Building:

Departments of:
- Agronomy
- Botany
- Plant Pathology

Experiment Station:

- Administrative Offices of Experiment Station

Animal Husbandry Building:

Departments of:
- Animal Husbandry
- Dairy Husbandry
- Poultry Husbandry
- Range Management
- Veterinary Science

Engineering Building:

Departments of:
- Agricultural Engineering
- Agricultural Surveying
- Applied Mechanics and Design
- Highway Engineering
- Irrigation and Drainage
- Mechanical Drawing
- Military Science and Tactics
- Rural Architecture

Part of the farm buildings show in the background. The Home Economics Cottage, the Cronquist Practice Farm and the North Logan Experimental Farm are all off the College Campus.

1924

JULY

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1925

JANUARY

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NOVEMBER

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DECEMBER

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JANUARY

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College Calendar for 1924-25

(Twelve weeks constitute a quarter; six weeks constitute a term.)

FALL QUARTER

September 29, Monday	Entrance examinations. Registration of former students and of new students admitted on certificates.
September 30, Tuesday	Instruction begins.
October 8, Wednesday	Assembly to announce scholarship awards.
November 27-30, (Inclusive)	Thanksgiving recess.
December 20, Saturday	Fall quarter ends.
Dec. 21, Jan. 4, (Inclusive)	

WINTER QUARTER

January 5, Monday	Winter quarter begins.
February 12, Thursday	Lincoln's Birthday.
March 21, Saturday	Winter quarter ends.

SPRING QUARTER

March 23, Monday	Spring quarter begins.
April 20-25	Annual Vocational Conference and Club Leaders' School.
April 25	High School Day.
May 11, Monday	Conferring of Scholarships and other awards.
May 25, Monday	Senior Chapel.
June 5, Friday	Spring quarter ends. Annual alumni business meeting and social.
June 6, Saturday	Commencement and Alumni Banquet and Ball.
June 7, Sunday	Baccalaureate Sermon.

SUMMER QUARTER

June 15, Monday	Summer quarter begins.
July 23, Thursday	First term ends.
July 27, Monday	Second term begins.
July 24, Friday	Pioneer Day.
September 4, Friday	Summer quarter ends.

Board of Trustees

ANTHONY W. IVINS	Salt Lake City
E. O. HOWARD	Salt Lake City
R. L. JUDD	Salt Lake City
JOHN D. PETERS	Brigham City
O. H. BUDGE	Logan
C. P. CARDON	Logan
LORENZO N. STOHL	Salt Lake City
HAMILTON GARDNER	Salt Lake City
ROY BULLEN	Salt Lake City
R. L. JONES	Cedar City
LUTHER M. HOWELL	Logan
A. P. BIGLOW	Ogden
H. E. CROCKETT, Secretary of State (ex-Officio)	Salt Lake City

OFFICERS OF THE BOARD

ANTHONY W. IVINS	President
E. O. HOWARD	Vice-President
R. E. BERNTSON	Secretary and Treasurer
JOHN T. CAINE	Auditor

STANDING COMMITTEES OF THE BOARD

Executive Committee—A. W. Ivins, E. O. Howard, O. H. Budge.

Agriculture—John D. Peters, C. P. Cardon, R. L. Jones.

Mechanic Arts—C. P. Cardon, O. H. Budge, H. Gardner.

Agricultural Engineering—O. H. Budge, John D. Peters, Roy Bullen.

Home Economics—R. L. Judd, C. P. Cardon, A. P. Biglow.

Commerce—A. P. Biglow, H. Gardner, John D. Peters.

Experiment Station—L. M. Howell, O. H. Budge, R. L. Jones.

Extension Division—L. N. Stohl, H. E. Crockett, John D. Peters.

Livestock—Roy Bullen, C. P. Cardon, R. L. Jones.

Buildings and Grounds—C. P. Cardon, H. Gardner, A. P. Biglow.

Power, Heat and Light—Roy Bullen, L. N. Stohl, H. E. Crockett, R. L. Judd.

Branch Agricultural College—R. L. Judd, R. L. Jones, L. M. Howell.

Legislation and Finance—H. Gardner, R. L. Judd, E. O. Howard, L. M. Howell.

Faculty and Course of Study—L. N. Stohl, O. H. Budge, R. L. Judd, E. O. Howard.

Officers of Administration and Instruction*

The College Faculty

(Arranged in groups in the Order of Seniority of Appointment.)

ELMER GEORGE PETERSON.....President

B. S., Utah Agricultural College, 1904; A. M., Cornell University, 1909; Ph. D. 1911. Graduate Student, University of Chicago, 1906; Assistant Professor of Zoology and Entomology, Utah Agricultural College, 1906-08; Instructor and Assistant Professor of Bacteriology, Cornell University, 1909-10; Professor of Bacteriology, Oregon Agricultural College, Bacteriologist, Oregon Experiment Station, 1910-11; Professor of Bacteriology, Utah Agricultural College, 1911-12, Director of Extension Division, 1912-16, President, 1916—

GEORGE WASHINGTON THATCHER.....Professor of Music

B. S., Utah Agricultural College, 1914. Student, New England Conservatory of Music; Graduate in Theory, Composition, and Orchestration, under Dr. Percy Goetschius; Special Music Study in Salt Lake City, Boston and New York, under Leading Masters. Professor of Music, Utah Agricultural College, 1905—

WILLIAM PETERSON.....Director of Experiment Station and Extension Division, Professor of Geology.

B. S., Utah Agricultural College, 1899, Instructor in Horticulture and Mathematics, Utah Agricultural College, 1899-1901; Student, University of Chicago, 1901-02, Summers of 1902-03-04. Assistant Professor of Geology and Mineralogy, Utah Agricultural College, 1904-06, Professor of Geology and Physics, 1906-08; Geology Field Work, 1908-10; Professor of Geology, Utah Agricultural College 1910—; United States Geological Survey Field Works, Summers 1912-13; Member of State Road Commission, 1914-16; Utah State Geologist, 1917-21; Director, Utah Agricultural College Experiment Station, 1921—; Director Extension Division, 1924—.

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*The College Council consists of the President and all members of the faculty with the rank of professor, associate professor or assistant professor.

*HYRUM JOHN FREDERICK.....Professor of Veterinary Science

D. V. M., Iowa State College, 1905. Assistant Professor of Veterinary Science, Utah Agricultural College, 1905-06; Professor, 1906—

FRANK RUSSELL ARNOLD....Professor of Modern Languages

A. B., Bowdoin College, 1893, M. A., 1902. Graduate Student, Harvard University, Summers of 1893, 94, 99; University of Paris, 1895-96; University of Bordeaux, 1896-97; University of Goettingen, 1897-98; University of Chicago, summers of 1902, 03, 04, Instructor, University of Chicago, summer of 1905; Assistant Professor of Modern Languages, Utah Agricultural College, 1904-06; Professor of Modern Languages, 1906—

JOHN THOMAS CAINE.....Auditor

B. S., Utah Agricultural College, 1894, Master Farmer (Honorary Degree), 1915. Student, Cornell University, 1876; Superintendent, Cache County Schools; Superintendent, Logan City Schools; Instructor in English, Utah Agricultural College, 1890-1907, Registrar, 1903-12; Auditor, 1912—

FRANKLIN LORENZO WEST.....Dean of the Faculty, Professor of Physics

B. S., Utah Agricultural College, 1904; Ph. D., University of Chicago, 1911. Graduate Student, Leland Stanford Junior University, 1904-05; Professor of Physics, Brigham Young University, 1905-06; Graduate Student, University of Chicago, 1906-07; 1910-11, Summers of 1906-07-10-11; Professor of Chemistry, Utah Agricultural College, 1907-08; Fellow, University of Chicago, 1910-11; Professor of Physics, Utah Agricultural College, 1908; Director of School of General Science, 1913-21. Dean of the Faculty, 1921—

JOSEPH EAMES GREAVES.....Professor of Bacteriology and Physiological Chemistry

B. S., Utah Agricultural College, 1904; M. S. University of Illinois, 1907; Ph. D., University of California, 1911. Graduate Student, University of Illinois, 1904-07; Instructor in Chemistry, Utah Agricultural College, 1907-08, Assistant Professor, 1908-10; Fellow, University of California, 1910-11; Associate Professor of Physiological Chemistry, Utah Agricultural College, 1911-13; Professor of Bacteriology and Physiogical Chemistry, 1913—

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*Absent on leave.

CALVIN FLETCHER.....Professor of Art

B. Pd., Brigham Young University, 1905. Student at Pratt Institute, 1906-07; Student at Columbia University, 1912; Student at Central School of Arts and Crafts, London, England, 1912-13; Student of M. Biloul and at Academy Colorossi, Paris, France, 1913; Student at Chicago Art Institute and Art Craft Institute, Chicago, Illinois, 1913-14; Superintendent of Art, Utah County Public Schools, 1903-05; Assistant Professor of Art, Brigham Young University, 1905; Assistant Professor of Art, Utah Agricultural College, 1907-12, Associate Professor, 1912-13; Vice-president, National Vocational Art and Industrial Federation, 1913-14; Director, Utah Art Institute, 1918-20, Professor, 1913—

RAY BENEDICT WEST.....Dean of the Schools of Agricultural Engineering and Mechanic Arts, Professor of Agricultural Engineering

B. S., Utah Agricultural College, 1904; C. E., Cornell University, 1906. Engineer, Oregon Short Line Railroad, 1906-07; In Charge of Engineering Department, Brigham Young College, 1907-08; Division Engineer, Sumpter Valley Railroad, 1908-09; Consulting Engineer, Portland, Oregon, 1909-12; Professor of Agricultural Engineering, Utah Agricultural College, 1912—, Dean of the Schools of Agricultural Engineering and Mechanic Arts, 1916—

GEORGE RICHARD HILL, Jr.....Dean of the School of Agriculture, Professor of Botany and Plant Pathology

B. S., Brigham Young University, 1907; B. S., Utah Agricultural College, 1908; Ph. D., Cornell University, 1912. Instructor in Agriculture, Latter Day Saints University, 1908-09; Graduate Student, Cornell University, 1909-12; Instructor in the Department of Plant Physiology, Cornell University, 1911-12; Research Assistant in the Missouri Botannical Garden, 1912-13; Instructor in Summer School, Cornell University, 1913; Professor of Botany and Plant Pathology, Utah Agricultural College, 1913—; Dean, School of Agriculture, 1916—.

JAMES HENRY LINFORD.....Director, Summer Quarter; Superintendent, Correspondence-Study Department

B. S., Brigham Young College, 1898; D. Did., (honorary degree), Latter Day Saints Board of Education, 1913. Normal School Graduate, Univerity of Utah, 1890; Student at the Hopkins Laboratory of Leland Stanford University, Summer Quarter, 1895-96; Student, University of Chicago, Summer Quarter, 1897; Professor of Zoology and Botany, Brigham

Young College, 1892-1912; President, Brigham Young College, 1900-13; Director of the Summer Quarter and Superintendent of the Correspondence Study Department, Utah Agricultural College, 1913—.

ARTHUR HERBERT SAXER.....Dean, School of Basic Arts and Science, Professor of Mathematics

B. S., Utah Agricultural College, 1910; M. S. University of California, 1912, Ph. D., 1915; Whiting Research Fellow, 1912-13; Instructor in Physics, Utah Agricultural College, 1910-11; Professor of Mathematics, Utah Agricultural College, 1913—, Director, School of Home Economics, 1917-21, Dean, School of Basic Arts and Science, 1921—.

NIELS ALVIN PEDERSEN.....Professor of English

Graduate, Utah State Normal College, 1901; A. B., University of Utah, 1906; A. M., Harvard University, 1913; Student University of Chicago, 1901; Critic Teacher, Utah State Normal College, 1901-03; Student, Leland Stanford University, 1903-05; Instructor in Department of Public Speaking, University of Utah, 1906-07; Instructor in English, Utah Agricultural College, 1907-08, Assistant Professor, 1908-12; Fellow, Harvard University, 1912-13; Graduate Student, University of California, 1922-24; Professor of English, Utah Agricultural College, 1913—

WILLIAM ERNEST CARROLL..Professor of Animal Husbandry

B. S., Utah Agricultural College, 1909; M. S., University of Illinois, 1911; Ph. D., 1914; Fellow, University of Illinois, 1910-11, 1913-14; Assistant Professor of Animal Husbandry, Utah Agricultural College, 1911-12, Associate Professor, 1912-14, Professor, 1914—.

PARLEY ERASTUS PETERSON.....Professor of Accounting

A. B., Brigham Young College, 1907; C. P. A., 1913; Graduate Student, Harvard University, 1909-10; Graduate student, New York University, Summer Quarter, 1910; Member, American Institute of Accounts, 1923; Instructor, History and Economics, Brigham Young College, 1907-09; Instructor in Accounting, Utah Agricultural College, 1911-12, Assistant Professor of Accounting, 1912-13, Professor, 1913—; Registrar, 1915-24.

FRANKLIN DAVID DAINES.....Professor of Political Science

A. B., Brigham Young College, 1906; A. M., Harvard University, 1913; Graduate Student, Harvard University, 1908-10-12-13; University of California, 1922-24; Instructor in Mathematics, Brigham Young College, 1906-08; Instructor in

Social Science, Brigham Young College, 1910-11; Assistant Professor of History, Utah Agricultural College, 1913-17; Professor, 1917-22, Professor of Political Science, 1922—.

JOHANNA MOEN.....Professor of Textiles and Clothing

B. S., Utah Agricultural College, 1920. Student, Technical Schools of Norway, 1904-05 and 1914-15; Student, Columbia University, 1908-09, 1915 and graduate work, Summer Session, 1922; Professor of Textiles and Clothing, Utah Agricultural College, 1920—.

*EDGAR BERNARD BROSSARD....Professor of Agricultural Economics and Farm Management

B. S., Utah Agricultural College, 1911; M. S., University of Minnesota, 1917; Ph. D., 1920; Graduate Student, Cornell University, 1917-18; Instructor in Mathematics, Utah Agricultural College, 1909-10; Utah State Farm Management Demonstrator, 1914-16 and Summer of 1917; Assistant Farm Management Demonstrator, University of Minnesota, 1916-17; Instructor in Farm Management, University of Minnesota, 1918-19; Professor of Farm Management, Utah Agricultural College, 1919-21; Professor of Agricultural Economics and Farm Management, Utah Agricultural College, 1921—.

REUBEN LORENZO HILL.....Professor of Chemistry

B. S., Utah Agricultural College, 1912; Ph. D., Cornell University, 1915; Fellow, Cornell University, 1913-14; Graduate Assistant in Physiological Chemistry, Cornell University, 1914-15; Instructor in Physiological Chemistry, 1915-16; Physiological Chemist, Bureau of Chemistry, United States Department of Agriculture, 1916; Bio-chemist, Maryland Agricultural Experiment Station, 1916-18; Commissioned First Lieutenant, Food Division of the Sanitary Corps, United States Army, 1918; Professor of Chemistry, Utah Agricultural College, 1919—.

GEORGE BALLIF CAINE.....Professor of Dairy Husbandry

B. S., Utah Agricultural College, 1912; A. M., University of Missouri, 1914. Assistant Professor of Animal Husbandry, Agricultural College, 1914-16; Assistant Professor of Dairy Husbandry, 1916-17, Associate Professor, 1917-20, Professor, 1920—.

*Absent on leave.

ORSON WINSO ISRAELSEN.....Professor of Irrigation and Drainage

B. S., Utah Agricultural College, 1912; M. S., University of California, 1914; Graduate Student, Utah Agricultural College, Summer 1912; University of California, 1912-14, 1923-24; Assistant Division of Irrigation Investigation, U. S. Department of Agriculture, Summers 1913-1914; Instructor, University of California, 1914-16; Assistant Professor of Irrigation and Drainage, Utah Agricultural College, 1916-17, Associate Professor, 1917-19, Professor, 1919—.

*GEORGE STEWART.....Professor of Agronomy

B. S., Utah Agricultural College, 1913; M. S., Cornell University, 1918. Graduate Student, Cornell Universtiy, 1916-17; Instructor in Agronomy Utah Agricultural College, 1913-16; Assistant Professor of Agronomy, Utah Agricultural College, 1917-18, Associate Professor, 1918-19, Professor, 1919—.

WILLIAM LAWRENCE WANLASS..Dean, School of Commerce and Business Administration, Professor of Business Administration

A. B. George Washington University, 1915, M. A., 1917; Ph. D., Johns Hopkins University, 1919. Instructor in History, George Washington University, 1916-17; Fellow in Political Science, Johns Hopkins University, 1917-19; Professor of Economics, Union College, Schenectady, New York, 1919-20; Dean, School of Commerce and Business Adinistration, and Professor of Business Administration, Utah Agricultural College, 1920—.

MILTON HYRUM HARRIS.....Professor of Economics

A. B., Brigham Young University, 1915; A. M., Columbia University, 1917; Graduate Student, Columbia University, 1917-19; Leland Stanford University, 1924; Instructor in Economics in the College of the City of New York, 1918-19; State Club Leader Utah Agricultural College, 1919-21; Professor of Economics, Utah Agricultural College, 1921—.

DAVID EARLE ROBINSON.....Professor of Marketing, In Charge, Information Service, Registrar

B. S., Utah Agricultural College, 1911. Graduate Student, University of California, 1914-15; Instructor in History, Utah Agricultural College, 1911-14; Assistant Professor of English, Utah Agricultural College, 1916-17; In Charge of

*Absent on leave.

Department of Information Service, 1916—; Assistant Professor of History, 1917-21, Professor of Marketing, 1921—; Registrar, 1924—.

HENRY PETERSON.....Professor of Education and Psychology

A. B., Brigham Young University, 1894; Ph. B., University of Chicago, 1905; A. M., Harvard University, 1906, Graduate Student, Harvard University, 1907; Dean, Church Teachers College, Brigham Young University, 1909-11; Superintendent, Box Elder County Schools, 1911-12; Principal Ogden High School, 1912-14; Principal, Jordan High School, 1914-17; Superintendent, Logan City Schools, 1918-21; Professor of Education and Psychology, Utah Agricultural College, 1921—.

IRA MYRON HAWLEY....Professor of Zoology and Entomology

B. A., University of Michigan, 1909; Ph. D., Cornell University, 1916. Graduate Student, Cornell University, 1912-16; Instructor, Cornell University, 1912-16; Investigator, 1917-21; Professor of Zoology and Entomology, Utah Agricultural College. 1921—.

JOEL EDWARD RICKS.....Professor of History

A. B., University of Utah; A. M., University of Chicago, 1920. President, Weber Normal College, 1920-22; Professor of History, Utah Agricultural College, 1922—.

GUSTAV WILSTER.....Professor of Dairy Manufacturing

B. S., Iowa State College, 1920; M. S., 1921. Student, Queensland Agricultural College, Australia, 1917; Assistant Professor of Dairy Husbandry, Utah Agricultural College, 1921-22, Associate Professor, 1922-23, Professor of Dairy Manufacturing, 1923—.

ALICE KEWLEY.....Professor of Household Administration, Superintendent, Home Economics Cottage, In Charge, Home Economics Education

B. S., Utah Agricultural College, 1910; Instructor in Foods and Sanitation, Nephi High School, 1910-13; Head of Home Economics Department, Granite High School, 1913-20; Assistant Professor of Education and Pedagogy, Utah Agricultural College 1921-23; Professor of Household Administration, 1923—.

VINCIL CAREY COULTER.....Professor of English

Ph. B., La Grange College, 1899; A. B., William Jewell College, 1903; A. M., Brown University, 1905; Graduate Student, University of Chicago, 1905-06; Student of Dijon University, France, Summer 1907. Assistant in English, William Jewell

College, 1901-04; Head of English Department, Joliet Township High School, 1906-07; Head of Department of English, State Teachers' College, Warrensburg, Missouri, 1907-20; President, Sioux Falls College, 1920-22. Professor of English, Utah Agricultural College, 1923—.

CARRIE CASTLE DOZIER....Dean, School of Home Economics; Professor of Foods and Dietetics

B. S., Oregon Agricultural College, 1918; A. M., University of California, 1919; Ph. D. 1923. Holder of Fellowship of the Hooper Foundation for Medical Research. Member of the faculty of the University of California, Southern Branch, 1922-23. Dean, School of Home Economics and Professor of Foods and Dietetics, Utah Agricultural College, 1923—.

ADRIN B. SMITH.....Professor of Military Science and Tactics

Captain, Coast Artillery Corps, United States Army.

CHARLES ROBERT JOHNSON.....Professor of Music

Graduate, Brigham Young University, Normal School and Music School, 1908; Graduate, National Summer School of Chicago, 1908-11; Student, Columbia Music School, Chicago, 1908-11; Student of A. C. Lund, Salt Lake City, 1901-02-03, Mrs. Cheney, New York, Summers, 1908-09, Arthur Burton, Chicago, 1909-10, George Hamlin, New York, 1910, Frederick E. Chapman, Boston, 1908-11, A. Cyril Graham, Chicago, 1909-10; Mus. B, Wolcott Conservatory of Music, 1924; Professor of Music, Brigham Young University, 1911-16; Assistant Professor of Music, Utah Agricultural College, 1916-17, Associate Professor, 1917-24, Professor 1924—.

WILLARD GARDNER.....Professor of Physics

B. S., Utah Agricultural College, 1912; M. S., University of California, 1915; Ph. D., University of California, 1916. Principal Murdock Academy, 1916-17; Graduate Assistant and Instructor in Physics, University of California, 1913-16; Professor of Physics and Mathematics, Brigham Young College, 1917-18; Associate Professor of Physics, Utah Agricultural College, 1918—.

BERT LORIN RICHARDS.....Professor of Botany and Plant Pathology

B. S., Utah Agricultural College, 1913, M. S., 1917; Ph. D., University of Wisconsin, 1919. Instructor, Utah Agricultural College, 1913-15, Assistant Professor of Botany and Plant Pathology, 1915-17; Student, University of Chicago, Summer

Quarter, 1916; Fellow, University of Wisconsin, 1917; Associate Professor of Botany and Plant Pathology, Utah Agricultural College, 1919-24, Professors, 1924—

E. LOWELL ROMNEY.....Director of Athletics

A. B., University of Utah, 1917. Second Lieutenant, U. S. Army, 1917-18; Assistant Professor Physical Education and Director of Athletics, Utah Agricultural College, 1919—.

ASA BULLEN.....Special Lecturer in Commercial Law

B. S., Utah Agricultural College, 1910; LL. B., Harvard University, 1913; Lecturer in Law, Utah Agricultural College, 1917—. Judge of the Logan City Court, 1919—.

AUGUST J. HANSEN....Associate Professor of Carpentry and Woodwork

B. S., Utah Agricultural College, 1911. Assistant Instructor, Utah Agricultural College, 1896-97, Instructor, 1897-1913, Assistant Professor of Carpentry and Woodwork, 1913-17, Associate Professor, 1917—.

AARON NEWEY.....Associate Professor of Machine Work

B. S., Utah Agricultural College, 1912. Student, Stourbridge Technical School, England, 1894-1900; Assisant in Carpentry, Utah Agricultural College, 1906-07, Instructor in Forging, 1907-14, Assistant Professor of Forging, 1914-17, Associate Professor of Forging, 1917-20, Associate Professor of Machine Work, 1920—.

WILLIAM BOWKER PRESTON.....Health Supervisor of Students, Medical Examiner, U. S. Veterans Bureau

M. D., University of Illinois, 1916. Graduate Work, West Side Hospital, Chicago, Illinois, 1916; Captain Medical Corps, U. S. Army, 1917-19; Medical Supervisor of Students and Medical Examiner, U. S. Veterans' Bureau, Utah Agricultural College, 1920—.

LUTHER MURKINS WINSOR.....Associate Professor of Irrigation and Drainage

B. S., Utah Agricultural College, 1911. Graduate Work, Utah Agricultural College, 1922-23; Graduate Work, University of California, 1923; Instructor in Irrigation, Extension Division, Utah Agricultural College, 1913-15, Assistant Professor of Irrigation and Drainage, 1915-20, Associate Professor, 1921—.

ALFRED H. POWELL....Associate Professor of Farm Machinery

Four years, Apprentice Machinist; Four years, Iron, Bronze and Steel Foundryman Apprentice; Assistant in Automobile and Tractor Work, Utah Agricultural College, 1918-19; Assistant Professor of Machine Work, 1919-20, Associate Professor of Farm Mechanics, 1920—.

KATHARINE M. COOPER.....Associate Professor of Physical Education for Women

B. S., Teachers' College, Columbia University, 1918. Diploma, State Normal School, Monclair, New Jersey, 1916; Tilestan Scholarship, Teachers' College, Columbia University, 1917-18;

Instructor in Physical Education, Barnard College, 1918-21; Associate Professor of Physical Education for Women, Utah Agricultural College, 1922—.

SHERWIN MAESER.....Associate Professor of Chemistry

A. B., Brigham Young University, 1909; Ph. D., University of California, 1921. Graduate Student, University of Chicago, 1915-16; Graduate Student, University of California, 1919-1921; Professor of Physics, Brigham Young University, 1916-19; Assisant in Chemistry, University of California, 1919-21; Assistant Professor of Chemistry, Utah Agricultural College, 1921-24, Associate Professor, 1924—.

DON WARREN PITTMAN....Associate Professor of Agronomy

B. S., Iowa State College, 1914; M. S., Utah Agricultural College, 1916; Instructor in Agronomy, Utah Agricultural College, 1916-20; Assistant Professor of Agronomy, 1920-24, Associate Professor, 1924—.

EDMUND BURKE FELDMAN.....Associate Professor of Agricultural Engineering

B. C. E., Uuniversity of Cincinnati, 1916; Graduate work, University of Minnesota, 1921-22; Associate Member, American Society of Civil Engineers; Licensed Structural Engineer, State of Illinois; Structural Designer, 1916-17; Structural Engineer, 1917-18; Assistant Engineer, U. S. Bureau of Aircraft Production, 1918-19; Bridge Designer, 1919-20; Structural Engineer, 1920-21; Practical Engineering Experience, 1912-21; Instructor, University of Minnesota, 1921-22; Assistant Professor of Agricultural Engineering, Utah Agricultural College, 1922-24, Associate Professor, 1924—.

BYRON ALDER.....Assistant Professor of Poultry Husbandry

B. S., Utah Agricultural College, 1912. Assistant Professor of Poultry Husbandry, Utah Agricultural College, 1913—.

CHARLES TARRY HIRST.....Assistant Professor of Chemistry

B. S., Utah Agricultural College, 1910, M. S., 1914; Graduate Student, University of California, 1918-19; Instructor in Chemistry, Utah Agricultural College, 1910-15; Assistant Professor of Chemistry, Utah Agricultural College, 1915—.

CHARLOTTE KYLE.....Assistant Professor of English

B A. and M. A., Park College. Instructor in English, Utah Agricultural College, 1907-16. Assistant Professor, 1916—.

JOSEPH R. JENSON....Assistant Professor of Physical Education

A. B., Brigham Young College, 1909. Recreational Director, Mather Field Flying School, Sacramento, California, 1918; Graduate Student, University of Wisconsin, Summer of 1912, Columbia University, Summer of 1916, University of California, Summer of 1919. Assistant Professor of Physical Education, Utah Agricultural College, 1917—.

RAYMOND J. BECRAFT.....Assistant Professor of Range Management

B. S., Utah Agricultural College, 1917. M. S., State College of Iowa, 1923; Grazing Examiner, United States Forest Service, 1917-19; Assistant Professor of Range Management, Utah Agricultural College, 1919—.

TRACY H. ABELL.....Assistant Professor of Horticulture

B. S., Montana Agricultural College, 1915; M. S., Oregon Agricultural College, 1917. Instructor in Horticulture, Utah Agricultural College, 1917-19, Assistant Professor, 1919—.

*EZRA GREAVES CARTER.....Assistant Professor of Bacteriology and Physiology

B. S., Utah Agricultural College, 1913. Graduate Student, Breslau University, Germany, Summer of 1914; Graduate Student, University of California, Summer of 1916; M. S, Utah Agricultural College, 1918. Instructor in Bacteriology, Utah Agricultural College, 1914-16; Dairy Bacteriologist, U. S. Public Health Service, 1917; Assistant Professor of Bacteriology and Physiology, 1918—.

*Absent on leave.

WILBER EVANS THAIN.....Assistant Professor of Accounting

B. S., Utah Agricultural College, 1914, Graduate Student, 1914-16; C. P. A., 1919. Instructor in Accounting, Utah Agricultural College, 1914-18; Cost Accounting, U. S. A. Engineers Corps, 1918-19; Instructor in Accounting, University of Wisconsin, Extension Division, 1919-20; Assistant Professor of Accounting, Utah Agricultural College, 1920—.

*WALLACE J. VICKERS.....Assistant Professor of English

B. S., Utah Agricultural College, 1912. Graduate Student, University of Chicago, Summer Quarter 1916 and 1916-17; Instructor in English, Latter-Day Saints University, 1917-19, Head of the Department, 1919-20; Assistant Professor of English, Utah Agricultural College, 1920—.

LEON D. HARDY.....Assistant Professor of Economics, Correspondence-Study

B. S., Utah Agricultural College, 1917. Assistant, Correspondence—Study Department, Utah Agricultural College, 1917-20, Assistant Professor of Economics, 1920—.

*HERBERT J. PACK.....Assistant Professor of Zoology and Entomology

B. S., Utah Agricultural College, 1913, M. S., 1923. Graduate Student, Cornell University, 1923-24. Instructor in Zoology, Utah Agricultural College, 1913-14; Professor of Biology, Latter-day Sains University, 1914-18; Instructor in Zoology and Entomology, Utah Agricultural College, 1920-21; Assistant Professor, 1921—.

SAMUEL ROY EGBERT.....Assistant Professor of Forging

B. S., Utah Agricultural College, 1923; Assistant in Forging, Utah Agricultural College, 1920-21; Assistant Professor, 1921—.

CHARLOTTE E. DANCY.....Assistant Professor of Nursing, Dean of Women

Graduate Nurse, Johns Hopkins Training School, 1896; Head Nurse, Johns Hopkins Training School, 1896-1901; Assistant Superintendent of Nurses, University Hospital, Columbus, Ohio, 1901-02; In Charge, District Nursing Work in Newark, 1903-06; Graduate Student, Battle Creek Sanitarium and Instructor in Mental Hospital, Elgin, 1906-08; In Charge, Surgical Department, 1908-10; Superintendent of Nurses, Latter-Day Saints Hospital, 1910-20; In Charge, Home Health and Nursing, Extension Division, Utah Agricultural College, 1920-21, Assistant Professor of Nursing, 1921—

*Absent on leave.

IVA MAUD DUNN.....Assistant Professor of Public Speaking

Ph. B., University of Chicago, 1920. Graduate of American Conservatory of Chicago, 1912; Instructor, Lexington College, 1908-11; Associate Professor, State Normal College, Peru, Nebraska, 1916-19, 1920-21; Assistant Professor of Public Speaking, Utah Agricultural College, 1921—.

HENRY OBERHANSLEY....Assistant Professor of Education and Psychology

A. B., Brigahm Young University, 1914. Graduate Student, Iowa State College, 1920; Graduate Student, University of California, Summer 1921; Principal Iron County High School, 1916-18; Assistant State Leader, Junior Vocational Work, Extension Division, Utah Agricultural College, 1918-19, Live Stock Specialist, Extenson Division, 1919-20; Assistant Professor of Education and Psychology, Utah Agricultural College, 1921—.

N. E. EDLEFSEN.....Assistant Professor of Physics

B. S., Utah Agricultural College, 1916; M. A., University of California, 1923; Instructor in Physcs, Utah Agricultural College, 1916-1923; Assistant Professor, 1923—.

EDITH BOWEN.....Assistant Professor of Education and Psychology

Normal Graduate, Brigham Young College, 1906; Student, University of Chicago, Summer of 1909; Advanced Normal degree, Brigham Young College, 1911; Graduate Student, Columbia University, 1919-20; Critic Teacher, Brigham Young College Training School, 1910-14; Teacher of ungraded work, Logan City Schools, 1914-16; Primary Supervisor, Logan City Schools, 1920-23; Assistant Professor of Education and Psychology, Utah Agricultural College, 1923—.

CHARLES W. REES.....Assistant Professor of Zoology and Entomology

B. S., Utah Agricultural College, 1913; M. A., University of California, 1920; Ph. D., University of California, 1921; Graduate Student, University of Chicago, 1916; Graduate Student, University of California, 1918-21; Fellow, University of California, 1919-20; Instructor in Biology, Brigham Young College, 1916-18; Instructor in Zoology and Organic Chemistry, Saint Mary's College, Oakland, California, 1921-22; Assistant Professor of Zoology and Entomology, Utah Agricultural College, 1923—.

GEORGE DEWEY CLYDE....Assistant Professor of Irrigation and Drainage

B. S., Utah Agricultural College, 1921; M. S., University of California, 1923; Assistant Professor of Irrigation and Drainage, Utah Agricultural College, 1923—.

JOSEPH A. SMITH, JR.....Assistant Professor of Band Music

Graduate, Chicago Musical College, 1907; Graduate Student, Chicago Musical College, 1907-08; Student of Felix Borowski and A. F. Weldon; Director Logan Military Band, 1912; Instructor in Band Music, Utah Agricultural College, 1917-23; Assistant Professor of Band Music, 1923—.

AARON F. BRACKEN.....Assistant Professor of Agronomy

B. S., Utah Agricultural College, 1914. Foreman, Nephi Experiment Station, 1914-17; Instructor in Farm Management, Extension Division, Utah Agricultural College, 1917-18; Scientific Assistant in Agronomy, U. S. D. A., 1918-20; Superintendent, Nephi Sub-station and Instructor in Agronomy, 1921—.

CHRISTINE BOCKHOLT CLAYTON.....Assistant Professor of Foods and Dietetics

B. S., Utah Agricultural College, 1915, University of Chicago, 1923. In charge, Department of Home Economics, Branch Agricultural College, and home demonstration agent for Iron County, 1919-1922; nutrition specialist, Extension Division, Agricultural College, 1923-24; Assistant Professor of Foods, 1924—.

O. CYRIL HAMMOND.....Secretary to the President

B. S., Utah Agricultural College, 1924—

RUSSELL ELWOOD BERNTSON.....Secretary and Treasurer

HATTIE SMITH.....Assistant Librarian

Student, University of California, Summer Quarters, 1907, 1917-18; Assistant Librarian, Utah Agricultural College, 1907—

DAN ARTHUR SWENSON.....Instructor in Carpentry and Woodwork

B. S., Utah Agricultural College, 1915; Assistant in Carpentry and Woodwork, Utah Agricultural College, 1913-16; Instructor,

LOUIS F. NUFFER.....Instructor in Botany

B. S., Utah Agricultural College, 1918; M. A., 1923; Instructor in Botany, Utah Agricultural College, 1918—.

EMIL HANSEN....Superintendent of Grounds and Greenhouses, Instructor in Landscape Gardening, Extension

Graduate, Technical School in Landscape Gardening, Denmark; Fellow, Royal Garden Association, 1895-97; Instructor,

Stormly School of Gardening, Norway, 1897-99; Landscape Gardener, Wandamere Park, Salt Lake City, 1904-06; Landscape Gardener, Rose City Cemetery, Portland, 1906-14; Superintendent, Grounds and Greenhouses, Utah Agricultural College, 1914—. Assistant in Horticulture, 1918-20, Instructor, 1920—.

THELMA FOGELBERG.....Instructor in Stenography and Business Practice

Student, Utah Agricultural College, 1917-19; Instructor in Stenography and Business Practice, Utah Agricultural College, 1919—.

RAY LANGTON ORMSBY.....Instructor in Textiles and Clothing

Graduate, Keister Tailoring College, Salt Lake City, 1904; St. Louis, 1908; Instructor in Textiles and Clothing, Utah Agricultural College, 1920—.

SIDNEY STOCK.....Instructor in Farm and Auto Mechanics

B. S., Utah Agricultural College, 1922. Instructor in Auto Mechanics, Ignition, Starting and Lighting, and Storage Batteries, Utah Agricultural College, 1919.

CHARLES E. McCLELLAN.....Instructor in Education

A. B., Brigham Young University, 1914. A. M., Utah Agricultural College, 1923; Superintendent Schools, Rigby, Idaho, 1914-15; Student, Summer Quarter, University of California, 1915; Principal, Millard Academy, 1915-17; Superintendent, Schools, Rigby, Idaho, 1917-20; Instructor in English and Education, Utah Agricultural College, 1921-23; Instructor in Education, 1923—.

HARRY R. REYNOLDS.....Instructor in Art

Graduate of the three-year course, Art Institute of Chicago. Instructor in Art, Utah Agricultural College, 1923—.

VON THEURER ELLSWORTH.....Instructor in Agricultural Economics and Farm Management

M. A., Utah Agricultural College, 1924; Instructor in Agricultural Economics and Farm Management, Utah Agricultural College, 1924—.

FLORENCE WALKER.....Instructor in Textiles

B. S., Utah Agricultural College, 1921. Graduate Student,

Columbia University, 1923-24 and summer of 1923. Instructor in Textiles, Utah Agricultural College, 1924—.

REED BAILEY.....Instructor in Geology

B. S., University of Chicago, 1924. Geological survey works in Utah, summer of 1922 and in Missouri, summer of 1923; Instructor in Geology, Utah Agricultural College, 1924—.

D. H. NELSON.....Assistant in Bacteriology and Physiology

M. A., Utah Agricultural College, 1924. Assistant in Bacteriological Utah Agricultural College, 1924—.

DELMAR CLIVE TINGEY.....Instructor in Agronomy

B. S., Agricultural College, 1922; M. A., 1924. Instructor in Agronomy, Utah Agricultural College, 1924—.

ABBY GROESBECK.....Assistant Registrar

Assistant Registrar, Utah Agricultural College, 1914—.

VERA CARLSON.....Chief Clerk President's Office

W. H. WARNER.....Assistant in Poultry Husbandry

AMY PRATT.....Assistant in Library

EUGENE J. CALLAHAN.....Assistant in Military Science and Tactics

Sergeant, D. E. M. L., United States Army.

WILFORD AUDETTE.....Assistant in Military Science and Tactics

Sergeant, D. E. M. L., United States Army.

BRICE COBB.....Assistant in Military Science and Tactics

Sergeant, United States Army.

CHARLES BATT.....Superintendent of Water, Heating and Lighting Plant

RASMUS OLUF LARSEN.....Superintendent of Buildings

Experiment Station Staff

WILLIAM PETERSON, B. S.
Director; Geologist

HYRUM JOHN FREDERICK, D. V. M.*
Veterinarian

JOSEPH EAMES GREAVES, Ph. D.
Chemist and Bacteriologist

WILLIAM ERNEST CARROLL, Ph. D.
Animal Husbandman

GEORGE RICHARD HILL, JR., Ph. D.
Botanist and Plant Pathologist

GEORGE BALLIF CAINE, A. M.
Dairying

EDGAR BERNARD BROSSARD, Ph. D.*
Farm Management

REUBEN LORENZO HILL, Ph. D.
Human Nutrition

GEORGE STEWART, M. S.*
Field Crops

ORSON WINSO ISRAELSEN, M. S.
Irrigation and Drainage

WILLIAM LAWRENCE WANLASS, Ph. D.
Marketing

IRA M. HAWLEY, Ph. D.
Entomologist

BYRON ALDER, B. S.
Poultryman

DAVID STOUT JENNINGS, Ph. D.
Soil Survey

RAYMOND J. BECRAFT, B. S.
Range Management

WILLARD GARDNER, Ph. D.
Physicist

BERT LORIN RICHARDS, Ph. D.
Botanist and Plant Pathologist

*On leave of absence.

LUTHER MURKINS WINSOR, B. S.
Associate in Irrigation and Drainage

CHARLES TARRY HIRST, M. S.
Associate Chemist

EZRA G. CARTER, B. S.*
Associate Bacteriologist

MOYER DELWIN THOMAS, B. S., M. A.
Associate Agronomist

GUSTAV WILSTER, M. S.
Associate Dairyman

DON WARREN PITTMAN, M. S.
Associate Agronomist

TRACY H. ABELL, M. S.
Assistant Hortculturist

GEORGE DEWEY CLYDE, M. S.
Assistant in Irrigation and Drainage

HERBERT J. PACK, M. S.*
Assistant Entomologist

LOUIS F. NUFFER, M. S.
Assistant Botanist

DANIEL H. NELSON, M. A.
Assistant Bacteriologist

AARON F. BRACKEN, M. A.
Superintendent, Nephi Sub-station

ALMA L. WILSON, B. S.
Superintendent, Davis County Farm

J. R. BATEMAN, B. S.
Superintendent, Panguitch Farm

PETER NELSON, M. A.
Farm Superintendent

RUSSELL E. BERNSTON
Secretary and Purchasing Agent

BLANCHE CONDIT-PITTMAN, A. B.
Clerk and Librarian

DAVID A. BURGOYNE, B. S.
Director's Secretary

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*On leave of absence.

Extension Division Staff

WILLIAM PETERSON, B. S.
Director

RENA BAKER MAYCOCK
State Leader, Home Demonstration Work

WILLIAM WHITE OWENS, B. S.
County Agent Leader

JAMES CHRISTIAN HOGENSON, M. S. A.
Extension Agronomist

JAMES HENRY LINFORD, B. S. D. Did.
Superintendent, Correspondence Study

BERT LORIN RICHARDS, Ph. D.
Pathologist

LUTHER M. WINSOR, B. S.
Irrigation Specialist

BYRON ALDER, B. S.
Poultry Specialist

BEN R. ELDREDGE, B. S.
Dairy Specialist

JOSEPH PRESTON WELCH, B. S.
Assistant Professor; County Agent, Utah County

ROBERT HASLAM STEWART, B. S.
Assistant Professor; County Agent, Box Elder County

W. PRESTON THOMAS, B. S.
Assistant Professor; County Agent, Weber County

ROBERT L. WRIGLEY, B. S.
Assistant Professor, County Agent, Cache County

ORSON P. MADSEN, B. S.
Assistant Professor; County Agent, Carbon County

VERE L. MARTINEAU, B. S.
Assistant Professor; County Agent, Salt Lake County

WILLIAM J. THAYNE, B. S.
Assistant Professor; County Agent, Davis County

ALBERT E. SMITH, B. S.
Assistant Professor; County Agent, Millard County

ARCHIE L. CHRISTIANSEN, B. S.
Assistant Professor; County Agent, Tooele County

CHARLES O. STOTT, B. S.
Assistant Professor; County Agent, Sanpete County

ELLEN AGREN, B. S.
Assistant Professor; Home Demonstration Agent, Weber County

DE LORE NICHOLS, B. S.
Assistant Professor; County Agent, Morgan County

MORGAN McKAY, B. S.
Assistant Professor; County Agent, Southern Utah

*ROZINA SKIDMORE, B. S.
Clothing Specialist

VICTORIA B. CHRISTENSEN
Specialist, Home Health and Nursing

ERASTUS PETERSON, B. S.
Assistant Professor; County Agent, Uintah County

IVY LOWRY, B. S.
Assistant Professor; Home Demonstration Agent, Salt Lake County

EZRA R. PRICE, B. S.
Assistant Professor; County Agent, Wasatch County

STEPHEN ROY BOSWELL, B. S.
Assistant Professor; County Agent, Sevier County

DAVID SHARP, Jr.
Assistant Professor; County Agent, Summit County

ALMA ESPLIN, B. S.
Assistant Professor; County Agent, Iron County

HORTENSE WHITE, B. S.
Assistant Professor; Home Demonstration Agent, Cache County

ALMEDA PARRY BROWN, B. S.
Assistant Professor; Home Demonstration Agent, Box Elder County

SADIE O. MORRIS, M. A.
Specialist in Foods

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*On leave of absence.

EFFIE SMITH BARROWS, B. S.
District Agent

AFTON ODELL, B. S.
Clothing Specialist

LEW MAR PRICE, B. S.
Assistant Professor; County Agent, Beaver County

RUBY SMITH, B. S.
Assistant Professor; Home Demonstration Agent, Utah County

EMIL HANSEN
Specialist, Landscape Gardening

IDA R. MITCHELL
Clerk

DOROTHY SPANDE
Stenographer

In Co-operation with United States Department of Agriculture

B. B. RICHARDS, B. S.
Biological Assistant, Rodent Control
Headquarters, Salt Lake City

Standing Committees

1924-25

The President of the College is ex-officio a member of each standing committee.

Advanced Standing—Professor Hawley.

Attendance and Scholarship—Professors F. L. West, Henry Peterson, Hawley, Jenson, Dancy.

Athletic Council—Professors Ray B. West, Jenson, Romney (representing the faculty): Professors George R. Hill, Jr., George B. Caine, Mr. John H. Bankhead (representing the Alumni); Floyd Thomas, Newel Sanders, Bert Gardner (representing the Student Body.)

Awards and Honors—Professors Wanlass, Linford, Dozier.

Boy Scout Activity—Professors George R. Hill, Jr., Fletcher, Richards, Oberhansley.

Campus Improvement—Professors Ray B. West, William Peterson, George R. Hill, Jr., Fletcher, Mr. Emil Hansen.

College Editor—Professor Robinson.

Assistant College Editor—O. C. Hammond.

Debating—Professors Coulter, N. A. Pedersen, Daines, Ricks, Maeser, Rees, Miss Smith.

Entrance—Professors Harris, Israelson, Hirst, Maeser, Edlefsen.

Exhibits—Professors William Peterson, Fletcher, Moen, A. J. Hansen, Mr. Emil Hansen.

Graduate Work—Professors F. L. West, William Peterson, George R. Hill, Jr., Greaves, Hawley.

Graduation—Professor Carroll.

High School Relations—Professors Henry Peterson, Robinson, Kewley, Oberhansley.

Library—Professors Ricks, Arnold, Wanlass, Coulter.

Loan Funds—Mr. Berntson, Professors Wanlass, Dancy.

Publicity—Professors Arnold, Robinson.

Recommendations for Employment—Professor Henry Peterson.

Schedule—Professor Maeser.

Student Affairs—Professor Jenson.

Student Body Organization—Professors Jenson, Becraft, Thain.

Student Employment—Mr. Hammond, Mr. Burgoyne.

Branch of the Agricultural College of Utah

at Cedar City

OFFICERS OF ADMINISTRATION AND INSTRUCTION

Faculty

(Arranged in Groups in the Order of Seniority of Appointment)

ELMER GEORGE PETERSON, A. M., Ph. D.
President

J. HOWARD MAUGHAN, A. M.
Director

PARLEY DALLEY, B. S.*
Head of the Department of General Science

GILBERT L. JANSON, A. M.
Head of the Department of Business and Social Science, Registrar

JOHN S. CHRISTENSEN, B. S.
Head of the Department of Physical Education

LOTTIE K. ESPLIN, A. M.
Head of the Department of English

DAVID L. SARGENT, B. S.
Head of the Department of Agriculture

GEORGE A. CROFT, B. S.
Head of the Department of Mechanic Arts

WENDELL S. STOUT, A. M.
Head of the Department of Normal Training

CORA G. McBRIDE, B. S.
Head of the Department of Home Economics

*On leave of absence.

W. H. MANNING, A. B.
Head of the Department of Music

MARIAN A. GUDMUNDSEN, A. M.
Instructor in English and Foreign Language

ARTHUR FIFE, B. S.
Instructor in Agricultural Engineering and Mathematics

ZOE ROBINSON, A. M.
Instructor in History and Economics

ARTHUR MORRIS, B. S.
Instructor in Animal Husbandry and Dairying

The Faculty Council consists of the Director and all heads of departments.

IRVIN T. NELSON, B. S.
Instructor in Agronomy and Horticulture

KING HENDRICKS, B. S.
Instructor in Public Speaking and English

JOHN A. YOUNG
Instructor in Physical Education; Athletic Coach

RAY LYMAN, B. S.
Instructor in Chemistry and Wool

ROSE THOMPSON, B. S.
Instructor in Domestic Science

E. F. OSBORN
Instructor in piano

RALPH A. HANSEN
Instructor in Violin

CLARA FARNSWORTH
Instructor in Library Economy; Librarian

CLAIRE WOODARD
Secretary

WILLIAM W. FLANIGAN
Engineer in Charge of Heating

CHARLES SLAUGHTER
Superintendent of Buildings and Grounds

Specialists of Extension and Demonstration

ALMA ESPLIN, B. S.
County Agent and Livestock Specialist

ARTHUR FIFE, B. S.
Irrigation and Drainage Specialist

ARTHUR MORRIS, B. S.
Superintendent of the College Creamery

IRVIN T. NELSON, B. S.
Superintendent of the College Farm and Livestock

Agricultural College of Utah

LOCATION

The Agricultural College of Utah is in Logan, the county seat of Cache county, one of the most prosperous agricultural counties in the State. The city has a population, thrifty and progressive, of about 10,000; it is quiet, orderly, clean and generally attractive, with neat homes, substantial public buildings, electric lights, a sewer and a water system. The main streets are paved and cement walks ramify the city; an excellent street car line extends from the station to the College and the interurban connects Logan with other towns of the valley as well as with Salt Lake City.

The College, uniquely situated on a broad hill overlooking the city, one mile east of Main Street, commands a view of the entire valley and surrounding mountain ranges. The site of the College was formed by the receding waters of prehistoric Lake Bonneville which built an enormous delta at the mouth of Logan canyon upon which the College buildings and farms are located. The beauty and geological significance of the location are perhaps unsurpassed. A few hundred yards to the south is the Logan river. A mile to the east is a magnificient mountain range with a picturesque canyon. In other directions are the towns and farms of Cache County distinctly visible through the clear atmosphere. The valley is a fertile, slightly uneven plain, 4,600 feet above sea level, about twelve by sixty miles in dimensions, almost entirely under cultivation and surrounded by the Wasatch mountains. It is one of the most attractive and healthful valleys in the West.

POLICY

The Agricultural College of Utah provides, in accordance with the spirit of law under which it was organized, a liberal, thorough and practical education. The two extremes in education, empiricism and the purely theoretical, are avoided; for the practical is based upon, and united with the thoroughly scientific. In addition to the practical work of the different courses, students are given thorough training in the sciences, mathematics, history, English, art, modern languages and other related subjects. The object is to foster all that makes for right living, good citizenship and high efficiency.

Under this general policy, the special purpose of the Agricultural College of Utah is to be of service in the upbuilding of the State and the great West to which it belongs. The instruction in agriculture and agricultural engineering, therefore, deals with the special problems relating to the conquest of the great areas of unoccupied lands, the proper use of the water supply and the kinds of crops or live stock which in Utah may be made most profitable; instruction in mechanic arts points out the most promising trades and teaches them so as to meet the needs of the State; instruction in commerce relates to the undeveloped resources and the present commercial conditions of the State and investigates the principles and methods to be applied in the commercial growth of Utah; instruction in home economics teaches the women right living and economic independence.

The dominating spirit of the Agricultural College of Utah is to make the common work of the world—the work that most men and women must do—both profitable and pleasant. The motto of the College is, Labor is Life.

HISTORY

The Agricultural College of Utah was founded March 8th, 1888, when the Legislative Assembly accepted the terms of the

national law passed by Congress on July 2nd, 1862. Under this Act of Congress, and the Enabling Act providing for the admission of Utah to the Union, 20,000 acres of land were granted to the State from the sale of which there should be established a perpetual fund, the interest to be used in maintaining the College.

Under the Hatch Act, approved in 1887, the State receives $15,000 annually for the Experiment Station. Under the Adams Act of 1906, the State receives an additional $15,000 annually for research work by the Experiment Station. Under the Morrill Act of 1890, amended by the Nelson Act of 1907, the State receives $50,000 annually for instruction at the Agricultural College. Under the Lever Act, the State received, in 1917-18, about $15,-000, which will increase for four years, for agricultural extension work to be done by the Agricultural College.

These federal appropriations, together with the annual income from the land-grant fund, represent the income received from the general government. Since most of these funds must be used in accordance with the law for specific purposes, the institution is dependent on State appropriations for funds with which to provide additional instruction and for general maintenance. These needs have been generously met in the past by the Legislative Assemblies of the State. In 1888 the sum of $15,-000 was appropriated for buildings and the County of Cache and the city of Logan gave one hundred acres of land on which to build the College. Since that time the State has, from time to time, appropriated sufficient funds to erect and maintain most of the buildings described in a later section, besides providing largely for instruction, experimentation and extension work.

By legislative action, the College receives annually 28.34 *per cent. of* 28 *per cent.* of the total tax revenue of the State, after deducting the revenue from 2.4 mills on the total State valuation (which is not to be exceeded), set aside for the support of the elementary and the high schools. In the same ratio the College will participate in the revenue from the occupa-

tion tax. The State, moreover, provides $10,000 annually for extension purposes, $15,000 for experimental work and an increasing fund for farm and home demonstrations.

In September, 1890, the Institution was opened for the admission of students. Degree courses were offered in agriculture, domestic arts, civil engineering, mechanic arts and commerce; a preparatory course and short courses in agriculture and engineering were also given. Since that time many improvements have been made in the courses; some have been abandoned; various special, practical, year and winter courses in agriculture, commerce, mechanic arts and home economics have been added; the standard of the college work has been raised. In 1903 the Board of Trustees established the School of Home Economics, the School of Mechanic Arts, the School of Commerce and Business Administration and the School of General Science, and in 1911 the School of Agricultural Engineering. In 1923, the School of General Science was renamed the School of Basic Arts and Science.

In 1913, the Branch Normal School at Cedar City was made a branch of the Agricultural College and is so maintained.

In December, 1918, the Board of Trustees authorized the establishment of an Agricultural Engineering Experiment Station to include the departments of irrigation and drainage, roads, farm machinery and transportation, manufacture of agricultural products, rural architecture and buildings, and rural sanitation and public health. The Utah Agricultural College is the first such institution in the United States to establish an agricultural engineering experiment station as a distinct division.

Since 1917, the Institution has consistently aided the Federal Government in war and post-war programs. During 1917-18, the College trained 492 young men in its Reserve Officers' Training Corps. Six hundred eighty soldier mechanics were trained at the Institution during the summer of 1918. With the establishment at the College in the fall of 1918 of a unit of

the Student's Army Training Corps, seven hundred twenty-four men were given collegiate and vocational military training. A large percentage of former U. A. C. students who saw service were commissioned.

The College gave valuable instruction in problems of increased production and consumption through its class room work. Twenty-five years of untiring experimentation showed excellent results when applied by Experiment Station specialists to concrete problems of production. The value to the State of the war service of the Extension Division was conservatively estimated at $4,738,027.00.

GOVERNMENT

The government of the College is vested primarily in the Board of Trustees and, under its control, in the four other administrative bodies,—the Deans' and Directors' Council, the College Council, the College Faculty and the Staff of the Experiment Station. These, in their several capacities, determine the policy and maintain the efficiency of the institution.

THE BOARD OF TRUSTEES consists of thirteen members. Twelve are appointed by the Governor with the approval of the State Senate; the thirteenth is the Secretary of the State who is *ex-officio* a member. This Board assumes the legal responsibility of the institution, cares for its general interests and directs its course by the enactment of all necessary by-laws and regulations. Vested in it is the power to establish professorships, to employ the instructing force and other officers of the College and to formulate the general policy of the institution.

Between sessions, the power of the trustees rests with an executive committee, whose actions are referred to the Board for approval. In addition, there are committees, largely advisory, that deal with the general interests of the College.

THE DEANS' AND DIRECTORS' COUNCIL consists of the President, the Deans of the various schools,—Agriculture, Home Economics, Agricultural Engineering, Commerce and Business Administration. Mechanic Arts and Basic Arts and Science—the Dean of the Faculty, the Director of the Summer Quarter, the Director of the Experiment Station and the Director of the Extension Division. This body has immediate supervision of instruction and discipline in all the various schools. It constitutes a permanent executive and administrative committee of the College Council and Faculty.

THE COLLEGE COUNCIL consists of the President of the College and all members of the faculty holding the rank of professor, associate professor or assistant professor. Questions of discipline and policy are decided by this body.

THE COLLEGE FACULTY includes the President, professors, associate professors, assistant professors, ranking professors, instructors and assistants. It is concerned with ordinary questions of methods and discipline and with other matters pertaining to the general welfare of the College.

THE STANDING COMMITTEES have delegated to them the immediate direction of all the phases of college life. The conduct of the student in his college home and his regularity in performing college duties; the publications of the College and of the students; the interests of the students on the athletic field, in the amusement halls and in their various organizations,—all are within the province of appropriate committees.

THE EXPERIMENT STATION STAFF consists of the President of the College, the Director of the Station and the heads, with their assistants, of the departments of the Station. This body is employed in the investigation of problems peculiar to agriculture in this part of the country. It is further responsible for the circulation through private correspondence and regular bul-

letins, of such information as is of practical value to the farming communities.

THE STUDENTS. The College is maintained at public expense for public good. The students, therefore, are under a peculiar obligation to perform faithfully all their duties to the State, the Institution and the community. Most important of these is an active interest in all that concerns the moral and intellectual welfare of the College. Regularity of attendance, faithful attention to studies and exemplary personal conduct are insisted upon at all times by the administrative bodies of the College.

ADMISSION AND GRADUATION

ADMISSION. Entrance to the freshman class is based upon a certificate of graduation from an accredited high school, or the satisfactory completion of the requirements for graduation and a recommendation from the principal of the high school the applicant attended. High school graduates are urged to send their diplomas and a record of their credits to the Registrar at least two weeks before the opening of school.

A high school unit is equivalent to four preparatory credits that are one hour in length and extend over a period of 36 weeks or to five that are forty-five minutes in length and extend over the same period of time.

A student may be ranked as a conditional Freshman provided he is deficient in not more than one unit of high school work. This deficiency must be removed, however, before the student is admitted to the Senior College.

A student who has more than one unit of high school deficiency cannot enter unless he is nineteen years of age, in which case he must register in the Vocational School.

ADVANCED STANDING. The college does not grant college credit for excess high school work. Advanced Standing for work done in some other accredited college may be granted by the Committee on Advanced Standing provided the student presents satisfactory evidence that the work offered is equivalent to the work for which he wishes to substitute it.

CLASS STANDING. Students are ranked as Freshman, Sophomores, Juniors or Seniors at the time they enter.

Thirty-six hours (36) of approved college work, in addition to the prescribed entrance requirements, are required for Sophomore rank; ninety hours and Senior College Standing for Junior rank (see pages 41, 42) and one hundred thirty hours and Senior College Standing for Senior rank. The foregoing requirements are to be exclusive of the required courses in Physical Education and Drill.

REGISTRATION. The fall quarter opens Monday, September 29; the winter quarter, Monday, January 5; the spring quarter, Monday, March 23; and the 1925 summer quarter, Monday, June 15. It is of decided advantage to register upon the opening date. The amount of work for which any student will be allowed to register will be reduced by one and one-half credit hours for each week or fraction thereof that the student is late in registration.

Fifteen hours, exclusive of Physical Education and Drill, is the normal registration for any one quarter. A student may, however, with the consent of the school director, register for seventeen hours.

QUARTER HOURS. A quarter hour of credit is the credit given for one hour of lecture or three hours of laboratory work each week for twelve weeks.

The collegiate work of the institution is divided into two divisions; Junior College courses and Senior College courses.

THE JUNIOR COLLEGE

The work of the Junior College comprises the studies of the Freshman and Sophomore years, upon the successful completion of which, according to conditions hereinafter stated, a Junior College Certificate will be granted. The Junior Certificate is required for admission to the Senior College.

In the Junior College it is expected that the student, in addition to fulfilling the prerequisites for the major work upon which he will concentrate in the upper division, will make an effort to establish a basis for that breadth of culture which will give him a realization of the methods and results of some of the more important types of intellectual endeavor, and a mental perspective that will aid him in reaching sound judgments. The Junior Certificate requirements were designed to provide in some degree for the accomplishment of this purpose, without unduly limiting the student's opportunity to satisfy his individual tastes and preferences.

Students who expect to become candidates for advanced degrees either in Arts and Sciences or in the professional schools in this institution or in other leading colleges of the country should plan their courses with great care through consultation with their deans in order to insure proper foundation for the technical work in the graduate division.

Junior College students will not be allowed to enter Senior College courses, except in meritorious cases and upon formal application approved by both the Dean and the Instructor of the course. Senior College credit will not be given to Junior College students who complete such Senior College work before they complete 90 credits.

REQUIREMENTS FOR THE JUNIOR CERTIFICATE

The Junior Certificate will be issued to a student upon the following conditions.

1. Two years Military Science. (Men) Two years Physical Education. (Men and Women.)

(A student who has been excused from Physical Education or Military Science for physical disability or other valid reasons must present one credit for each quarter for each subject from which he has been excused.)

2. a. The completion of ninety credits of work as hereinafter conditioned excluding Physical Education and Military Drill.

b. The completion of two-thirds of the total group requirements for graduation and of one-third of each of the group requirements for graduation in the particular school in which the student is registered. (In the School of Agriculture, the Special Group is not included in this requirement.)

c. The completion of an additional 15 hours of work in one school, (in the school of Basic Arts and Science in one group or in the department of education) this work to represent a continuation of the high school major if one has been selected or, if not, of some subject taken in the Senior year at high school. The aim of this requirement is to prepare the student for his major work in the Senior College.

3. To insure sufficient foundation for Senior College work students must present the following prescribed units or else their election of work will be correspondingly limited, i. e., part of the unconditioned Junior College electives must be used to strengthen subjects in which they are deficient:

a. English .....three units
b. Algebra .....one unit
c. Geometry or equivalent mathematics.....one unit
d. Social Science.....one unit
e. Natural Science .....one unit
(Requiring laboratory work.)

The student will be expected to select a major department on entering the institution. The Dean will assign the student to a professor in his school who will act as his adviser in all matters connected with the selection of his major, his registration and general school life.

The Junior College Certificate will be issued at the end of the quarter in which the requirements for the certificate have been satisfied.

THE SENIOR COLLEGE

Only those students who have been granted the Junior Certificate or who have completed the equivalent at some other accredited college will be registered in the Senior College.

REQUIREMENTS FOR THE BACHELOR'S DEGREE

The Degree of Bachelor of Science in Agriculture, Home Economics, Agricultural Engineering, Mechanic Arts, or Basic Arts and Science is conferred upon the following conditions:

1. Presentation of the Junior College Certificate in the case of the Utah Agricultural College students or its equivalent in case of students coming from other accredited colleges.

(Students from other institutions who do not present two years of military science will be registered for this work during their time in residence unless excused for valid reasons.)

2. Four quarters work in Physical Education for both men and women.

(A student who has been excused from Physical Education for physical disability or other valid reasons must present one credit for each quarter for each subject from which he has been excused.)

3. The completion of ninety credits of work after the attainment of Senior College standing. (Exclusive of Physical Education.)

4. The completion of 54 credits of Senior College work after being granted Senior College standing.

5. The completion of thirty credits forming a major subject in some one department in the school from which the student expects to graduate, one-half of which must consist of Senior College courses.

6. The completion of eighteen credits forming a minor subject in some other department or departments of the same school.

7. The completion of credit requirements as specified on pages 45-51.

The candidate for the bachelor's degree in Agriculture must also pass an examination at the beginning of his senior year in farm practice to be given by the head of the department in which the student is majoring, the director of the School of Agriculture and one other to be selected by these two.

OTHER REQUIREMENTS FOR GRADUATION. The student must have been in attendance at least one school year preceding the conferring of the degree. This residence period must include his senior year, unless specific arrangements to the contrary have been made. He must have no grade lower than "D" in any subject used for graduation. Four-fifths of his quarter grades must be "C" or better. He must be of good moral character. He must have discharged all college fees. He must be recommended for graduation by the faculty of the school in which he is doing his major work and must receive the favorable vote of two-thirds of the members of the College Council. Unless he secures an excuse in writing from the Committee on Graduation, he must be present in person at the commencement exercises at which he secures his degree.

No student may be recommended to the College Council for graduation as long as he has any deficient grades in any subject used toward graduation. Students who expect to graduate at the June commencement must have their work in shape for presentation to the College Council at least 60 days before commencement.

GRADUATION WITH HONORS. A superior student is permitted to obtain the bachelor's degree with honors upon the completion of additional work in his major department or in closely related departments. This work is additional to the regular requirements for graduation; is done under the direction of the departmental faculty, and consists of organized reading and study; or it may consist in part of a reasearch problem. Any senior

college student of more than usual ability and scholarship is eligible.

GRADUATION AT THE CLOSE OF THE SUMMER QUARTER. Any student who can satisfy the requirements for graduation by the close of the Summer Quarter may be presented to the College Council in May. Such students are listed with the class of the following year and receive their public graduation at the following Commencement. The graduation of such students, however, will be certified to by the proper authorities of the College as soon as their work is completed, *provided* it is completed before September 15 of the year in which they are passed upon for graduation.

The major and minor and the group requirements in the various schools for the bachelor's degree are as follows:

REQUIREMENTS OF THE SCHOOL AGRICULTURE

Technical Division

Major Subject.....30 hours

(At least one-half Senior College credit)

Thirty hours forming a major subject must be chosen by the candidate in some one department in the School of Agriculture. The student must consult with the professor in charge of his major subject and secure his approval of the proposed combination of courses. This should be done as early as possible and must be done not later than the beginning of the Senior year.

Minor Subjects .....18 hours

Eighteen hours forming the minor subjects must be chosen in some other department or departments of the same school.

General Division

Biological Science Group.....18 hours
Exact Science Group.....18 hours
Language Group .....18 hours
Social Science Group.....18 hours
Special Group.....18 hours

The special group is additional work in one or more of the above groups in the general division or in educational subjects, and will be designated by the dean of the School of Agriculture.

Electives ..... 48 hours

These electives are entirely at the disposal of the student.

REQUIREMENTS OF THE SCHOOLS OF AGRICULTURAL ENGINEERING AND MECHANIC ARTS

Technical Division

Major Subject ..... 30 hours

(At least one-half Senior College credit.)

Thirty hours forming a major subject must be chosen by the candidate in some one department of the school in which the student expects to graduate. The student must consult with the professor in charge of his major subject and secure his approval of the proposed combination of courses. This should be done as early as possible and must be done not later than the beginning of the Senior Year.

Minor Subject ..... 18 hours

Eighteen hours forming the minor subjects must be chosen in some other department or departments of the same school.

Special Group (Technical)..... 30 hours

The special group (technical) is additional work in the technical division and will be designated by the Dean of the Schools of Agricultural Engineering and Mechanic Arts.

General Division

Biological Science Group..... 9 hours
Exact Science Group..... 18 hours
Language Group ..... 12 hours
Social Science Group..... 9 hours
Special Group (general)..... 18 hours

The special group is additional work in one or more of the above groups in the general division and will be designated

by the Dean of the Schools of Agricultural Engineering and Mechanic Arts.

Electives ..... 42 hours

These electives are entirely at the disposal of the student.

REQUIREMENTS OF THE SCHOOLS OF COMMERCE AND BUSINESS ADMINISTRATION, HOME ECONOMICS AND BASIC ARTS AND SCIENCE

Technical Division

Major Subject ..... 30 hours

(At least one-half Senior College credit.)

Thirty hours forming a major subject must be chosen by the candidate in some one department in the school in which he expects to graduate. The student must consult with the professor in charge of his major subject and secure his approval of the proposed combination of courses. This should be done as early as possible and must be done not later than the beginning of the Senior Year.

Minor Subjects ..... 18 hours

Eighteen hours forming the minor subjects must be chosen in some other department or departments of the same school.

General Division

Biological Science Group ..... 18 hours
(12 hours in the School of Commerce and Business Administration)
Exact Science Group ..... 18 hours
Language Group ..... 24 hours
Social Science Group ..... 18 hours
Special Group ..... 18 hours

The special group is additional work in one or more of the above groups in the general division or in educational subjects, and will be designated by the School Director.

Electives ..... 42 hours

(48 hours in the School of Commerce and Business Administration

These electives are entirely at the disposal of the student.

The departments from which the major and minor subjects may be elected and the subjects included in the various groups of the General Division are listed below.

REQUIRED WORK
(For All Schools)

Technical Division

Major, 30 hours in one department.

Minors, 18 hours in some other department or departments of the same school.

Special Group. In the Schools of Agricultural Engineering and Mechanic Arts the dean will designate thirty hours in a special technical group.

SCHOOL OF AGRICULTURE

Agricultural Economics
Agronomy
Animal Husbandry
Art (minor only)
Bacteriology
Botany and Plant Pathology
Chemistry
Dairying
Entomology
Horticulture
Veterinary Science

SCHOOL OF AGRICULTURAL ENGINEERING

Art
Agricultural Surveying
Farm Mechanics
Irrigation and Drainage
Highway Engineering
Rural Architecture
Rural Sanitation

SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION

Accounting and Business Practice
Agricultural Economics
Art (minor only)
Business Administration
Economics
History
Marketing
Political Science
Sociology
Stenography (minor only)
Typewriting (minor only)

SCHOOL OF HOME ECONOMICS

Art (minor only)
Household Administration
Music (minor only)
Foods and Dietetics
Textiles and Clothing

SCHOOL OF MECHANIC ARTS

Automobile Work
Iron Work
Art
Mechanical Drawing
Machine Work
Technology of Mechanic Arts
Wood Work

SCHOOL OF BASIC ARTS AND SCIENCE

Advanced Military Science (minor only)
Art
Bacteriology
Botany
Chemistry
Education
English
Entomology
Foreign Languages
Geology
History
Library Work (minor only)
Mathematics
Music
Physics
Physiology
Zoology

The departments from which the general subjects may be elected are grouped as follows:

REQUIRED WORK

General Division

BIOLOGICAL SCIENCE GROUP (18 Hours)

(9 hours in the Schools of Agricultural Engineering and Mechanic Arts and 12 hours in the School of Commerce and Business Administration.)

Bacteriology
Botany
Entomology
Physiology
Veterinary Science
Zoology

EXACT SCIENCE GROUP (18 Hours)

Accounting
Chemistry
Geology
Mathematics
Physics
Surveying

LANGUAGE GROUP (24 Hours)

(18 hours in the School of Agriculture and 12 hours in the Schools of Agricultural Engineering and Mechanic Arts)

English
French
German
Latin
Public Speaking
Spanish

SOCIAL SCIENCE GROUP (18 Hours)

(9 hours in the Schools of Agricultural Engineering and Mechanic Arts)

Agricultural Economics
Business Administration
Economics
History
Marketing
Political Science
Sociology

The College Council is the only body that has the authority to waive or abridge in any way the foregoing requirements for graduation.

SPECIAL GROUP (18 Hours)
ELECTIVES (42 Hours)

(48 Hours in the Schools of Agriculture and of Commerce and Business Administration.)

REQUIREMENTS FOR ADVANCED DEGREES

Registration of all graduate students shall be made by the chairman of the committee on graduate work.

The Master's Degree

The degree of Master of Arts may be granted on the completion of the following requirements:

The candidate must have been in actual residence at the College at least three full quarters after receiving the standard Bachelor's degree (or after having met the requirements for this degree), and must obtain fifty-one (51) credits for work in addition to the 180 College credits and 15 High School units, or their equivalent, required for the Bachelor's degree.

Summer Quarter students with the baccalaureate degree are allowed five years in which to complete their work and residence requirements for the master's degree.

To be admitted to the candidacy for the Master's degree the student must have his course of study approved by November 1, or at least seven months preceding the date on which he expects to receive the degree, by the committee on graduate work, the professor in charge of his major subject and the dean of the school in which his major subject is taken.

A thesis covering the work done in the major department must be prepared by May 1 and must be accepted by the group which approved his candidacy. At least two copies of the thesis must be filed with the college librarian.

The candidate must successfully pass an oral examination, which will be given under the direction of the committee on graduate work, by the professor in charge of his major subject, the

dean of the school in which his major work is taken and three professors to be selected by the committee on graduate work.

ORGANIZATION

The work of the College falls into three distinct divisions: first, the Experimental Division, having for its object the discovery of new truth or the new application of established truth, for the advancement of life; second, the College Proper, giving instruction, especially to young people, on the home campus of the College; third, the Extension Division, which carries instruction to the people who can not come to the College campus.

To accomplish this work the following administrative divisions exist, each of which draws upon the departments for its instructional or experimental force:

I Experimentation.

1. The Agricultural Experiment Station.
2. The Agricultural Engineering Experiment Station.

II Instruction on the College Campus—the College Proper.

3. The School of Agriculture.
4. The School of Home Economics.
5. The School of Agricultural Engineering.
6. The School of Mechanic Arts.
7. The School of Commerce and Business Administration.
8. The School of Basic Arts and Science.
9. The Summer Quarter.

III Instruction beyond the College Campus.

10. The Extension Division.

The instructional and investigational forces with the equipment necessary to carry out the work of the above divisions are organized into departments, of co-ordinate authority, each of which represents a somewhat definite field of knowledge. All officers

of instruction or experimentation belong to one or another of these departments. One professor, designated head, carries the administrative responsibility of the department. At present, the College maintains forty-six departments.

The Student Body Organization

The Student Body Organization embraces all the students of the institution. Its prime object is to foster a proper spirit of college loyalty and to give the students practice in managing public affairs. It also secures dispatch and efficiency, as well as uniformity, in the administration of all matters pertaining to the entire student body and induces all students to participate in college activities. The organization provides each member with a maximum of proper athletic, theatrical and social recreation at a minimum expense, viz., $8.00 annually. This society has control, under faculty direction, of the following student activities:

1. *Athletics,* including all inter-class and intercollegiate contests in foot ball, baseball, basketball, track, tennis, swimming, and wrestling events. The Agricultural College is a member of the Rocky Mountain Conference, a fact which insures an interesting athletic program.

2. *Musicals,* including all public performances of the Band, the Orchestra and Musical clubs.

3. *Theatricals.* In the past, *A Midsummer Night's Dream, She Stoops to Conquer, Pygmalion, Milestones, The Admirable Crichton, What Every Woman Knows, Twelfth Night* and various other productions, have been presented.

4. *Debating and Public Speaking.* Triangular debating arrangements have been made whereby, annually, the Agricultural College debates the University of Utah and the Brigham Young University on the same question. Interstate debates are also held. Those who make places on the teams not only win awards, but are admitted to membership in the Agora, an honorary debating fraternity. Debaters showing special excellence are

admitted to membership in Tau Kappa Alpha, a national honorary debating fraternity, a chapter of which is established at the College. Interest in inter-class debating is keen.

The annual oratorical contests for the Hendricks medal and for that given by The Sons of the American Revolution maintain among the students an active interest in extemporaneous public speaking. For dates of these contests, see college calendar, page 5.

5. *Student Publications.* The students of the College, under the direction of the faculty of English, publish a weekly school paper, *Student Life,* and the College year book, named *The Buzzer;* the Agricultural Club, the *Ag. Club Link.* Interest in journalistic work is stimulated by the presence on the campus of a chapter of the national honorary journalistic fraternity, Pi Delta Epsilon.

6. *Lyceum Course.* Each year the Student Body presents, in connection with the B. Y. College, from six to eight lecturers, readers, or musical attractions, of national or local repute. These entertainments are free to members of the Student Body.

Student Clubs

Not affiliated with the Student Body organization, but standing largely for the interests of the various schools, are the following clubs:

The Agricultural Club, which aims to promote interest in scientific and practical agriculture. The club has affected similar organizations in the high schools of the State. Special lectures, often illustrated, are given at intervals throughout the season. The club conducts an annual tour, studying farm conditions in northern Utah.

The American Association of Engineers, a local chapter of the national organization made up of students and practicing engineers. Any student majoring in any branch of engineering is eligible for membership. The purpose of the organization is the advancement of the engineering profession and the promotion

of the economic and social welfare of the engineer. Regular monthly luncheons are held at which men of repute are invited to speak on pertinent current problems.

The Home Economics Club, to which all students registered in the School of Home Economics are eligible. The object of the club is four-fold:

1. To stimulate interest in Home Economics;
2. To broaden and elevate each member's ideals for social, industrial and ecomomic life, thereby helping her better to fit into the home and community;
3. To provide wholesome recreation:
4. To foster ties of friendship among the members.

The Commercial Club, working to promote the interests of the School of Commerce and Business Administration, to popularize the commercial courses and to consider matters of interest not encountered in routine work. The club maintains an annual lecture course, given by prominent men of the State, on topics of special interest to the business man. All commercial students are eligible to membership.

The Mechanic Arts Association, designed to promote the social and intellectual interests of its members. All the teachers and all the regularly enrolled students of mechanic arts are eligible to membership. Monthly meetings are held throughout the year at some of which lectures are given by specialists.

Gamma Sigma Delta, a chapter of the national honorary fraternity for students in agriculture. Members are chosen for scholarship from the upper one-fourth of the junior and senior classes in agriculture.

Phi Kappa Phi, a chapter of the national honorary scholarship fraternity.

Tau Kappa Alpha, a chapter of the national honorary debating fraternity.

Alpha Kappa Psi, a national fraternity, devoted to the interests of commerce and business.

Phi Upsilon Omricron. The Kappa chapter of this national professional and honorary fraternity is installed at the College. Its purpose is to stimulate interest in Home Economics.

Scabbard and Blade, a company of the national, honorary, military fraternity of the same name, organized to perpetuate American ideals and efficiency among young college men and open to cadet officers who have shown particular excellence in thier R. O. T. C. work.

Pi Delta Epsilon, a chapter of the national honorary journalistic fraternity.

The Agora, a local organization open to men from the intercollegiate debating teams. Its purpose is to foster debating in the College and keep alive among the old debaters an interest in such contests. Students may become members of both Tau Kappa Alpha and The Agora.

The Chemistry and Physics Club, organized to promote interest in chemistry.

The Be-No Club, organized to foster scholarship, fellowship and loyalty.

The Benedicts' Club, designed to promote the social welfare of married students and to lower their expenses by co-operative buying.

The Periwig Club, composed of students prominent in dramatics. This club produces annually several plays.

The Booklovers' Club, organized for the study of subjects related to English literature but not usually treated in the classroom.

The Quill Club, an organization of writers.

The Cosmos Club, organized for the study of present day problems; open only to men.

The Tennis Club, organized to promote interest in tennis and to develop players for intercollegiate matches.

The Empyrean Club, organized for the study of current problems; open only to women of Senior College standing.

Le Cercle Francais, maintained by students in French for practice in speaking the language.

The Cosmopolitan Club, composed of faculty members and students and organized for the purpose of furthering internationalism and world peace. To be eligible for membership, candidates must be of foreign birth, must have lived in a foreign country or show a keen interest in world problems.

Beaux Arts Guild, designed to encourage interest in the various phases of Art by lectures and informal social meetings.

Alpha Sigma Nu, a senior honorary society. Membership is maintained by elections from the Junior class held each spring.

The Men's Rifle Club, organized to foster marksmenship among its members.

The Women's Rifle Club, composed of women interested in the use of fire arms.

The Botany Club, composed of students especially interested in botany. Lectures are given by faculty members and initiation discussions by new members.

The Short Story Club, organized to promote interest in the short story.

The Girls Athletic Club, composed of women students who are particularly interested in athletic contests, hiking, etc.

Various other clubs, as well as a number of fraternities and sororities are also in successful operation.

Student Expenses

Tuition is free. Utah students pay an annual entrance fee of $38.00; students from other states pay $63.00. By State law, however, the Institution may relieve worthy and deserving students from payment of the entrance fee, provided that not more than ten per cent of the total student body be relieved of this fee in any one year. A withdrawal deposit of $1.00 is charged every student.

According to the constitution of the Student Body, every reg-

ular student must pay, in advance, a Student Body fee of $8.00 if registered for three quarters, of $6.00 if registered for two quarters, and of $3.00 if registered for one quarter, for which a membership card is issued admitting him to all the activities controlled by the Student Body organization; athletic events—football, baseball, basketball, tennis and track—dramatic and musical entertainments, socials, lectures, etc., and, in addition, giving him a copy of the annual year book and subscription to the college paper. This system has been found to be a great saving to the students and a most excellent means of fostering proper interest in student activities.

The Utah Agricultural College has been designated by law as an institution where units of the Reserve Officers' Training Corps are maintained. As such it has promised the Government to give certain military instruction of a definite kind and character.

The student, by registration at the Institution, obligates himself to conform to such requirements as are or may be prescribed by the College Council under the regulations of the Reserve Officers' Training Corps. These requirements, at present, are as follows: Two years of required military training, followed by two years of optional military training. Free uniforms are furnished by the War department to those taking the required work. Those taking the last two years receive, in addition to free uniforms, commutation of subsistence. The requirements will vary slightly according to the military units in which the student registers.

In order to remain and receive instruction at the College or to graduate finally from the College, the student must be in attendance at all military classes and do satisfactory work in them.

As all students are required to take Physical Education they must provide themselve with gymnasium suits and gymnasium shoes. The cost is about $6.00

Each student in Foods and Dietetics courses and House-

hold Administration 150 must provide herself with the following: two hair nets, one or two white petticoats, two washable white uniforms, two white work aprons.

Each student in Home Nursing course must provide herself with the following; one or two white petticoats, two washable white uniforms.

The uniforms required for the Home Nursing course, and the aprons and uniforms required for the Foods course and Household Administration 150, must be of the standard designs provided by the Textile and Clothing Department.

Materials should be procured after consultation with the instructors in charge.

All graduates from the School of Home Economics who desire to qualify as teachers in home economics under the Smith-Hughes Act must spend the required period of residence in the Home Economics Cottage, as indicated in Household Administration 150. The expenses are $6.00 per week for board and room.

The fee charged for a diploma of graduation is $5.00

Good board and room in a private home costs from $6.00 to $7.50 a week. By renting rooms and boarding themselves, students are able to reduce considerably the cost of room and board.

The College maintains a modern, well equipped cafeteria, where students may eat at cost.

The following table furnishes an estimate of the actual yearly expenses of students attending the Utah Agricultural College:

	Low	Average	Liberal
Tuition, books, fees, etc.	$ 75	$ 75	$ 75
Room and Board	200	250	300
Incidentals or Miscellaneous	50	90	150
Total	$325	$415	$525

Students are held responsible for any injury done by them to the College property.

The Senior Loan Fund, a gift of the class of 1911, and added to by the class of 1922, has helped many students through school.

SCHOLARSHIPS AND AWARDS

The Johansen Scholarship Fund of $5,000, a gift of the late Mrs. Johana Johansen, provides three scholarships annually, each worth approximately $120, for the help of worthy students of Junior or Senior rank. Applications for this scholarship must be filed with the chairman of the committee on honors and awards before April 15 for the succeeding year.

The One Thousand Dollar Liberty Bond Endowment yields a loan fund of $40, which is to be loaned by the Directors' Council to a student who has made formal application before April 12, and who has need of financial help and who has demonstrated a high degree of scholarship in the work of previous quarters.

The U. A. C. Faculty Women's League has a loan fund for the women students of the college. Loans may range from $50 to $200. Preference is given to senior women students. Loans are made at any time during the year when money is available.

The Citizenship Award, given by President Elmer G. Peterson, is awarded annually to the male student who shows evidence of being able to repay, in greatest measure, to the Nation the investment which it has made in him. The United States in return for the opportunities which they freely offer to all their youth, irrespective of conditions of race, wealth or social position, cherish the faith that there will arise a noble and enlightened citizenship that will exalt and perfect the ideals of government and of industry. Such is the prime motive of education.

The basis of the award is as follows:

(a) The potential vocational or professional efficiency of the student as shown by his scholarly attainment, his industry, and natural ability and talent, 50 points.

(b) His patriotism, honesty and good judgment as a student citizen, as an indication of his future attitude as a voter or public servant, combining a progressive spirit with a love of country and a concern for the safety and development of American institutions of liberty and justice. His qualities of social leadership, as shown in student affairs, based upon physical and moral cleanliness and strength. 50 points.

The R. O. T. C. Medal, a gift of the Institution, is awarded each year to the student in Military Science and Tactics who most nearly represents the ideal that the Reserve Officers' Training Corps is striving to develop, upon the following basis:

(a) Character, 20 points.
(b) Scholarship, 15 points.
(c) College Activity, 15 points.
(d) Leadership, 20 points.
(e) Aptitude for and interest in Military Science, 20 points.
(f) Physique and bearing, 10 points.

The Rhodes Scholarships. Special attention is called to the Rhodes Scholarships in Oxford University, England, to which one appointment from the State of Utah will be made for 1925. The scholarships are each of the value of approximately $1,500.00 a year, and are tenable for three years. Full information and application blanks may be secured at the President's office.

The National Transportation Institute. Prizes are awarded to the three students presenting the best papers on the subject of transportation. The prizes are fifty dollars, fifteen dollars and ten dollars. The winner of the first prize will be eligible to contest for a still larger prize in a district contest.

The Hendricks Medal, a gift of Mrs. Carrie M. Hendricks, in memory of the late Professor George B. Hendricks, is awarded yearly to the student who delivers the best extemporaneous speech.

The Sons of the American Revolution award a medal annually for the best patriotic speech.

The Vernon Medal, a gift of Dr. Weston Vernon, is given each year for the best short story written around western characters and with a western setting.

.... *The Lois Hayball Medal* is to be awarded annually to a Junior or Senior student in the School of Home Economics on the following basis:

(a) Qualities of Womanhood.

(b) Evidence of application of Home Economic principles in every relation of daily life.

(c) Proficiency in scholastic attainments.

The Howell Medal, a gift of Howell Brothers, is given annually to the best inter-collegiate debater.

The Howell Medals, a gift of Howell Brothers, are given annually to the members of the championship inter-class debating team.

The Utah Agricultural College Science Medal, a gift of Professor William Peterson, is given each year to the student writing the best review of recent scientific research in either mathematics, physics, chemistry, geology, zoology, botany or astromomy.

The Titus Medals, given by Dr. E. G. Titus to the winners of the singles tennis tournament for men and women.

A Loving Cup, for scholarship, the gift of Dr. W. L. Wanlass, is presented each year to the social fraternity showing the highest scholarship. This cup will become the property of the first fraternity to win it three times.

Scholarship A's are given at the close of each year to the six highest ranking students.

Several further awards are given for athletic and other student body activities.

A list of the recipients of various honors will be found at the back of the catalog.

BUILDINGS AND EQUIPMENT

The College now has nearly thirty buildings, all modern, well lighted and heated and all carefully planned.

The Main Building is 360 feet long, 200 feet deep in the central part and four stories high. It contains the large auditorium, seating about 1,500, the administrative offices, the library and many class rooms and laboratories.

The Home Economics Building is one of the largest and best equipped structures devoted entirely to domestic science and arts in the inter-mountain region.

The Thomas Smart Gymnasium is one of the finest and most complete college gymnasiums in the Rocky Mountain region. It contains a main exercise hall, 114 by 70 feet, the equipment of which can be quickly put in place or hoisted out of the way to suit any need. Ten feet above the main floor is a running-track, a hand-ball court and a wrestling and boxing room. The large pool, shower and steam baths and dressing rooms with steel lockers are ideal.

The Experiment Station is a two-story brick structure 45 feet long and 35 feet wide, containing the offices of the station and extension staffs, and a dark room for photography.

The Mechanic Arts Building, a two-story brick structure, has a floor area of 40,000 square feet and contains the wood-working department, machine shops, forging rooms, foundry, carriage building rooms, mechanic arts museum, drafting rooms, blue-printing room, room for painting and staining and class rooms,—all well equipped.

Widtsoe Hall, containing three stories, thoroughly modern in plan and equipment, is occupied by the Departments of Chemistry, Physics and Bacteriology.

The Live Stock Building of three stories is exceptionally well fitted with facilities for the study of dairying, hog, horse, poultry and sheep husbandry and range management.

The Agricultural Engineering Building, an excellently arranged three story brick structure, houses the Departments of Irrigation and Drainage, Surveying, Hydraulics, Mechanical Drawing, Architecture, Household Sanitation, Farm Mechanics, including auto and tractor work, and some related phases of the work of the Institution.

The Plant Industry Building is a four story brick building, thoroughly modern in arrangement. It houses the departments of Agronomy, Botany and Plant Pathology and Horticulture.

The Barns contain the various breeds of cattle, horses, sheep and hogs most common in the western section.

The Horse Barn is the most modern structure of its kind that can be built.

The Stock Judging Pavilion makes it possible to do stock judging in all kinds of weather.

The Poultry Yards are equipped with various types of buildings to accomodate about one thousand fowls, a brooder house with a capacity of 2,500 chicks and a modern incubator cellar with standard incubators of several makes and designs. The laboratory is well supplied with different styles and sizes of incubators, brooders, food hoppers, etc., suited to use in study of the management of large and small flocks.

The Greenhouses are prepared for laboratory instruction in the propagation of horticultural plants and in the practice of floriculture and vegetable gardening.

The Veterinary Hospital contains a well equipped dispensary, operating room and stalls for patients.

The Seed House is designed as a store house for the seeds of the Department of Agronomy.

The Heating Plant, in order to take care of the many new buildings on the College Campus, has been doubled in size and will insure properly heated laboratories and class rooms.

EQUIPMENT

The Bacteriological Laboratory is well equipped with modern apparatus. To encourage careful work, the students are provided with individual lockers.

The Chemical Laboratories are modern and thoroughly equipped.

The Physical Laboratory Equipment is complete, consisting of all the necessary apparatus for class demonstration. Gas, compressed air, continuous and alternating current electrical power, etc., are available.

The Physiological Laboratory is supplied with an excellent collection of native animals, skeletons, both articulated and disarticulated, many enlarged models of organs, a *papier mache* manikin and complete slides of all the tissues.

The Zoological and Entomological Laboratory is equipped with water and gas, improved instruments, embryological models, skeletons from the vertebrae groups, collections of mounted birds, mammals, reptiles, fishes and insects.

The Botanical and Plant Pathological Laboratory is well equipped for general work as well as for research. The department maintains a good working library in connection with the laboratory.

The Department of Agronomy is provided with a large collection of agricultural plants, seeds and soils, representing the main crops and types of soil of the inter-mountain region.

The College Farms are equipped with the best and latest implements and machinery for carrying on work scientifically. They are divided, for illustrative and experimental purposes, into numerous plats on which many varieties of farm crops are grown and upon which important experiments are carried on.

The soil physics laboratory has a good supply of apparatus for accurate and up-to-date work.

The farm crops laboratory, equipped with gas, has a large

supply of farm crops on hand and is well supplied with apparatus.

The Commercial Rooms, occupying the entire third floor of the front of the Main building, are specially designed and furnished for business. The room for typewriting contains a full complement of standard machines.

The College Museum contains many specimens illustrative of geology, mineralogy, paleontology and vertebrate and invertebrate zoology, including a large series of plants of the western mountain region and an extensive series of plants of the western highlands. An extensive collection of grains represents the produce of Utah and other states. Contributions of fossils, ores, animals, plants, relics or other material of value to the museum, are appreciated. All gifts are labeled and preserved and the name of the donor is recorded.

The Art Rooms, composed of six studios, are supplied with plain and adjustable tables, easels and model stands, individual lockers, cases for materials, casts from the old masters in sculpture, reproductions of great paintings, still-life models and draperies, as well as with a valuable collection of ceramics, textiles and books on art.

The Library occupies the entire front of the second floor of the Main building. It is the laboratory for every course given at the College and contains 35,920 books and a large number of pamphlets. The books are classified by the Dewey decimal system and there is a complete dictionary card catalog. The shelf list, also on cards, forms a classified catalog for official use.

The library is also a depositary for United States documents and for the Carnegie Institute. The files of the United States Department of Agriculture and publications of the Experiment Stations are nearly complete; the bulletins are bound and made easy of access by the printed card catalogs. There are one hundred and forty periodicals on the subscription lists, besides about one hundred which are received as exchanges for publications of the College and of the Experiment Station. Practically all the news-

papers of the State are on file in the Reading Room. The Reading Room is beautifully furnished in oak and contains many oil paintings and pieces of statuary.

The land occupied by the College embraces about 142 acres. Of this, thirty-five acres constitute the campus, laid out with flower-beds, broad stretches of lawn, tennis courts, wide drives and walks.

Immediately east of the Main building is the quadrangle of about ten acres. The Adams athletic field in one-fourth mile west of the campus. The farms comprise 97 acres, the orchards and the small fruit and vegetable gardens, 10 acres.

In order to enlarge the experimental and instructional opportunities of the faculty and students of the college, the State Legislature of 1919 authorized the expenditure of $25,000 to purchase additional farm land.

Other farms are maintained, under the direction of the Experiment Station, in various parts of the State.

The equipment of the Branch Agricultural College is described in the circular of that institution.

THE EXPERIMENT STATION

The Agricultural Experiment Station is a division of the College, supported by Federal and State appropriations, supplemented by the receipts from the sale of farm products. The Station was created for the purpose of discovering new truths that may be applied in agriculture and for making new applications of well-established laws. Essentially devoted to research, it does the most advanced work of the College. It is composed of seventeen departments with a staff of over thirty highly trained specialists who are investigating over fifty distinct projects.

The Station is not, in the ordinary sense, an institution where model farming is carried on. It has a much higher pur-

pose. The practices of the farmer are subjected to scientific tests in order to determine why one is bad and another good. Acting on the suggestions thus obtained, the scientists begin new investigations in the hope that truths of great value to the farmer may be discovered.

The Station confines its efforts as far as possible to the particular problems of the inter-mountain region. Irrigation, the foundation of western agriculture, has received greatest attention. Elaborate experimental plats have been equipped where the value of different quantities of water and methods of application have been studied and the underlying principles brought out.

Dry-farming problems are only second in importance to those of irrigation in the development of the West. A number of experimental dry-farms are maintained on which every effort is made to increase production. Many of the present investigations involve water-holding capacity of soils, the water requirements of crops, the movement of plant foods and other questions fundamental to all systems of agriculture.

Other problems vitally affecting the agriculture of the West are under investigation. Alkali, the big problem of all arid and semi-arid countries, is receiving considerable attention. Breeding experiments for the improvement of sugar beets, potatoes, cereals, alfalfa and poultry are in progress. Insect pests and plant diseases affecting western crops and orchards are under constant surveillance. The micro-organisms of the soil which have recently been found to be an important factor in agriculture, are being studied. The development of better cropping methods, the dairy industry and the range lands of the State are receiving attention together with various livestock rations. Plant disease, horticultural and soil surveys are now in progress. Among the last projects to be started are human nutrition investigations and a study of the farm management problems of Utah.

Bulletins containing the results of experimental work and circulars containing timely and practical information on various subjects are issued at irregular intervals. These are mailed free of charge to all persons requesting them.

The Experiment Station has a high educational value. Nearly all the staff are also members of the College faculty; the students, therefore, receive at first hand an account of the methods and results of the work of the Station, as well as training in their application. The opportunities that the Station offers for advanced work in several branches of science are of great importance. The scientific method and spirit characterize all its operations and none can fail to be benefited by a study of the experiments that go on at all times of the year.

The Station is always glad to assist advanced students in any investigations they wish to undertake.

THE AGRICULTURAL ENGINEERING EXPERIMENT STATION

The Board of Trustees established in 1918 an Agricultural Engineering Experiment Station as a separate division of the work of the College. The organization of the Agricultural Engineering Experiment Station is a logical development of the work of the College following the organization in 1911 of the School of Agricultural Engineering. It will enable the college to use part of its funds, both federal and state, in the investigation of the many problems which confront the development of agriculture on the engineering side.

The profession of rural engineering is almost a realization. The farmer must, therefore, be advised fully in regard to engineering as it affects rural communities. That there was a direct need for this organization, is evidenced by the fact that much work which is properly a part of the work of such a station has been carried on informally by various departments of

the college. The work of the Agricultural Engineering Experiment Station will continue in a more complete way the work which has thus already been undertaken informally and it will branch out ultimately to include all of those problems wherein the profession of engineering touches that of agriculture.

As organized as present, the Agricultural Engineering Experiment Station consists of the Departments of Irrigation and Drainage, Roads, Farm Machinery and Transportation, Manufacture of Agricultural Products, Rural Architecture and Buildings and Rural Sanitation and Public Health. Complete programs of work have already been outlined in these different departments and comprehensive investigations are under way.

THE EXTENSION DIVISION

Organized for the purpose of dissemminating the work of the College and the United States Department of Agriculture among the people of the State and for the further purpose of beginning new work outside the College which may be of service to the people of the State, the Extension Division serves two purposes; it carries on organized instruction in the various subjects included in the College curriculum and it perform personal and community service of a more directly practical nature. The Extension Division is the joint representative in Utah of the United States Department of Agriculture and the Utah Agricultural College.

Administration

The Extension Division, in its administration, is divided into departments as follows:

Administration	Correspondence Study
Junior Extension Work	County Agent Work
Specialists	Community Service Bureau

Home Demonstration Work

A corps of specialists is maintained at the College for the purpose of giving special aid to the Extension agents in the

counties and otherwise promoting their special lines of work.

County Agricultural Agents are maintained in most of the counties of the State. Their chief work consists in developing and executing a program of agricultural improvement, in making necessary calls to individual farms, in supplying market quotations and in otherwise rendering service to the farmer.

County home agents are maintained in a number of counties and cities of the State. The purpose of this work is to develop and carry out a definite program of home improvement which is done by working through organizations and by individual calls as far as possible. This work is carried on through the home section of the farm bureaus.

County work is maintained for the purpose of supervising and assisting the boys and girls in carrying out definite farm and home projects. Under this plan the primary purpose is to develop leadership and train boys and girls in better methods of farm and home practice.

The Correspondence Study Department. The Utah Agricultural College was one of the first educational institutions in the inter-mountain region to establish such a department.

Correspondence study furnishes an excellent opportunity for systematic instruction to the student preparing for high school or college, the teacher, the professional or business man, the club woman, the project leader in extension work—to all who cannot leave home.

Admission to correspondence work. Students must be eighteen years of age or graduates of the public school.

Scope: Courses offered:

1. Academic studies which, under certain restrictions, count toward a degree.

2. Practical studies designed to advance men and women in a given occupation.

3. Reading Courses for the farmer: short, practical, non-

credit courses in agronomy, animal husbandry, horticulture, farm machinery, bee-keeping, etc.

4. Reading Courses for the housewife: short, practical non-credit courses in sanitation, home management, cooking service, sewing, home decoration, home care of the sick, etc.

5. Reading Courses for the business man: short, practical non-credit courses in analysis of retail merchandising, retail store accounting, bookkeeping for the wholesale grocer, bookkeeping for co-operative grain elevators and creameries.

6. Preparatory or high school course.

7. Grade studies.

A special bulletin of the correspondence study department will be mailed to any one interested.

The work of the Community Service Bureau, designed to help Utah towns and villages in community celebrations, club work and school life, includes (a) play service, (b) club service, (c) community service, (d) debate service and (e) library service.

Publications of real value to the rural communities are issued in the form of circulars as occasions demand.

COLLEGE PROPER

For the purpose of efficient administration, the instruction on the campus or in the College proper is divided into seven schools: (1) The School of Agriculture; (2) The School of Home Economics; (3) The School of Agricultural Engineering; (4) The School of Commerce and Business Administration; (5) The School of Mechanic Arts; (6) The School of Basic Arts and Science; (7) The Summer Quarter.

The School of Agriculture offers a four-year college course with opportunity to major in agricultural economics, agronomy, animal husbandry, bacteriology, botany and plant pathology, chemistry, dairying, entomology, horticulture or veterinary science.

The School of Home Economics offers a four-year college

course with the opportunity to major in foods and dietetics, household administration or textiles and clothing.

The School of Agricultural Engineering offers a four-year college course with the opportunity to major in art, agricultural surveying, farm mechanics, irrigation and drainage, highway engineering, rural architecture or rural sanitation.

The School of Commerce and Business Administration offers a four-year college course with the opportunity to major in accounting and business practice, agricultural economics, business admistration, economics, history, marketing, political science or sociology.

The School of Mechanic Arts offers, in addition to shorter trade courses, a four-year college course in mechanic arts, with the opportunity to major in art, iron work, mechanical drawing, machine and automobile work, technology of mechanic arts and woodwork.

The School of Basic Arts and Science offers a four-year college course in general science.

The Summer Quarter offers instruction during twelve weeks of the summer, in most of the subjects taught during the winter.

Each school also offers *practical year and winter courses* which may be taken by mature students fitted to follow them.

For *Work in Education,* see index.

THE SCHOOL OF AGRICULTURE

Agriculture is one of the most promising of modern professions. It is growing very rapidly and, owing to the scientific foundation that recent years have given it, large numbers of intelligent people are adopting it as their means of livelihood. The new agriculture is not a profession of unceasing toil. On the contrary, the freedom, health, intellectual activity and profit to be obtained from intelligent farming are attracting the best classes of people. Utah and other western states are offering ex-

cellent opportunities to those who prepare themselvs for scientific farming. There is a great demand for men who can supervise large farm enterprises; there is a greater demand for men who can act as experts, experimenters or teachers in the schools and other institutions in the State and National Government. The supply of such men does not equal the demand.

Experience having shown that practically all of the students who take agriculture come from the farms, it is assumed that they are acquainted with the various manual operations of farm work. The design of the school is, therefore, to teach the sciences that underlie practical agriculture and to offer sufficient supplementary studies to develop the agricultural student to the intellectual level of those educated in the other professions. The agricultural courses are planned to lay a foundation upon which the student can build a successful career as a farmer or develop into a specialist in agriculture. Before a degree will be granted in agriculture, the student must give evidence that he has spent at least one summer at farm work.

The general and departmental libraries enable the student to become acquainted with a wide range of agricultural and related literature; the laboratories of the College and the Experiment Station afford opportunity for training and experience not obtainable from books alone.

For subjects in which the student may major or minor see Required Work for Graduation.

THE SCHOOL OF HOME ECONOMICS

The steady growth of Home Economics courses in leading colleges and universities indicates the ever increasing realization that the well conducted home is the most important factor in the development of healthy and capable citizens. The multiplying complexities of modern life demand, that those in charge of the family understand much that is beyond the exact limits

of the home. Therefore stress is laid on the study of childhood and adolescence, and the problems of social, industrial and civic life.

The State of Utah wisely introduced courses in home management when the college was organized and the support which has been accorded to the work by the public shows the wisdom which prompted this provision.

Year by year increased facilities have become available for the students in the School of Home Economics. Special mention should be made of the well equipped Home Nursing Laboratory; and opportunity for apprentice teaching in Home Economics in several Cache County High Schools. The newer trend of the study of Foods and Nutrition has been recognized by additions and changes in the dietetics laboratory course; and finally, in accordance with the policy of the institution to concentrate its efforts on offering opportunities for the well prepared students provision is made for graduate and advanced undergraduate work in the various phases of Home Economics. Residence for twelve weeks in the Home Economics cottage, serving primarily as a laboratory for the Household Management course, makes it possible for senior students to apply and correlate the principles of home management, food engineering, household accounting, Home planning and Interior Decoration, etc. Considerable emphasis is placed also on the spiritual side of home-making in order that students may have an opportunity of studying its relative importance in family life.

The technical work in this school is organized into three departments, each dealing with one of the three equally important and interrelated phases of Home Economics. These are the Departments of Food and Dietics, Household Administration and Textiles and Clothing. The course as a whole includes certain foundational courses in science and art that are perequisites to the technical work and the so-called cultural courses,

which must be included both to make a true Home Economics Course and to meet the College graduation requirements. This combination is well designed to fit women for the following professions: (1) Home Keeping; (2) Teaching of Home Economics; (3) Home Economics Extension Work. It also prepares women to hold various positions in the social and industrial organizations.

The completion of the Home Economics course requires four years of college work and leads to the degree of Bachelor of Science.

Special provision is made for courses desired by women who are unable to take the regular course work and yet who desire training in various phases of home economics.

THE SCHOOL OF AGRICULTURAL ENGINEERING

The rural problem has many phases. An adequate and self-perpetuating country life cannot be made simply by teaching people how to raise grain and fruit and how to manage and improve livestock. The country might be filled with farmers well trained in these branches and still lack many of the elements necessary for a well-balanced and efficient rural community. Many problems having to do with the entire community rather than with the individual farmer must be solved by men with training for that kind of work rather than by those trained to produce crops and livestock on a single farm. Again, many questions on the individual farm have to do with construction rather than with production from the soil. These questions can be properly answered only by men with special training.

In the past, agricultural colleges have given their attention to the direct questions of farming, but now the entire rural problem must be met. The farm must be a desirable and healthful place to live. The buildings must be so arranged and constructed as to give the maximum of efficiency and comfort and

at the same time have proper sanitary provision. The rural roads must be such that the farmer can move his crops with small expense and go to town with comfort and speed. The machinery of the farm must be so constructed and cared for that it will be reliable and work economically. The limited supply of irrigation water must be so used as to produce maximum returns. There must be factories to change the raw materials of the farm into high-priced finished products. All these necessities demand men trained for them.

To meet the demand, the College has organized a School of Agricultural Engineering designed to enable men to solve all but the most technical engineering problems of an entire rural community. The courses are very helpful to the farmer who does not wish to do the work of a trained engineer.

Students may major in art, agricultural surveying, farm mechanics, irrigation and drainage, farm and public roads, rural architecture and rural sanitation and public health. These courses all lead to the degree of Bachelor of Science.

THE SCHOOL OF COMMERCE AND BUSINESS ADMINISTRATION

The purpose of the School of Commerce and Business Administration is to give opportunity for liberal education with special emphasis upon the commercial and industrial phases of life. Persons who complete the commercial courses are prepared to assume leadership and responsiblity in business and in various industries and professions. In order to meet the growing demands and to keep pace with recent tendencies in business education, students may major in accounting and business practice, agricultural economics, business administration, economics, history, marketing, political science and sociology.

In addition to these college courses, vocational courses are offered.

For the professions of law and medicine the commercial courses afford excellent preparation. Graduates are prepared for positions as teachers in commercial schools. The demand for qualified teachers is greater than the supply while many desirable positions as industrial managers are open to those who are qualified.

The European War created an intense demand for men trained in foreign service and foreign trade. The Federal Bureau of Education has requested all colleges of the country to offer courses in preparation for such service. Accordingly, the School of Commerce and Business Administration has outlined a four years' course designed to fit students for foreign trade and diplomatic service. Especial emphasis will be placed on our South American commerce.

THE SCHOOL OF MECHANIC ARTS

This School offers three-year trade courses in contracting and building, forging and carriage work and automobile repairing; a two-year trade course in painting and interior decoration; and a four-year college course leading to the degree of Bachelor of Science.

The information offered finds application in every industrial activity and is much demanded by the rapid growth in the mechanical and industrial pursuits. As more and more of the work of man is done by machinery and labor-saving devices, it is desirable to obtain information that will enable man to meet the new conditions intelligently. The many applications of electricity and gas power in the factory, shop, home and on the farm, and the advent of the automobile demand a knowledge of materials, tools, machines and processes.

The agricultural student can obtain in the School of Mechanic Arts just the information he needs to enable him to do the constructive work in farm buildings and the repair work neces-

sary in operating machinery thereby making farm life more profitable and desirable. Those who intend to enter engineering will find no better preparation than that offered in the mechanic arts courses. In the shops a knowledge of the nature of materials, methods of construction and operation of machinery can be had better than elsewhere. The demand for manual training teachers is far in advance of the supply.

The drafting rooms give thorough work in the methods of making mechanical drawings and afford opportunity to specialize in the line of work the student is pursuing, such as architectural, carriage, machine and agricultural drawing.

Students may major in art, iron work, mechanical drawing, machine and automobile work, technology of mechanic arts and woodwork. Vocational courses are also offered.

All products of the shop are the property of the school, students being allowed to take away specimens of their work only by permission.

THE SCHOOL OF BASIC ARTS AND SCIENCE

To carry out the work of the several technical schools of the College, an efficient instructing force and complete modern equipment have been provided in the natural and physical sciences, as well as in English, mathematics, history, language, etc. This makes it possible to satisfy the growing demand for strong baccalaureate courses affording a broad general education in the earlier years and admitting of specialization later. Such courses constitute the work of the School of Basic Arts and Science and, parallelling the other degree courses of the College, lead to the degree of Bachelor of Science

For subjects in which students may major or minor, see Requirements for Graduation.

EDUCATION

By act of the 1921 legislature the Utah Agricultural College is required to add education to its course of study. The pur-

pose is to enable students to prepare for the teaching profession in the broad lines of work represented in the College curriculum. In answer to this demand of the State, courses have therefore been added in psychology and education.

While all eligible students may enter these courses, some of them are especially designed to prepare Smith-Hughes teachers in agriculture and home economics and others to prepare extension workers.

These courses will be especially inviting because of the great demand for people trained in these lines. The federal government and the various states now employ about 5,000 extension workers and there is always great demand for teachers of agriculture and home economics and of trades and industries. Those who graduate in this work will have good opportunities for employment on twelve month contracts, while teachers in other lines usually have but nine month contracts. This fact alone will draw large numbers to them.

To keep teachers of agriculture and of home economics and extension workers alive and growing and to give them incentive to aspire to positions of broader usefulness, graduate courses will be offered that will apply to the getting of higher degrees and that will prepare for extension work as county agricultural agents, county home demonstration agents, agricultural specialists, home economics specialists and state and federal leaders in these lines. Advanced work will likewise be offered to prepare progressive teachers for greater responsibilities in Smith-Hughes work.

Vocational credits in education will be granted by the College for work done by high school students who are regularly registered in the junior extension school conducted each year by the College, subject to the following provisions:

(a) That vocational credit be granted only to students who are registered for the course and complete the prescribed work under the supervision of a representative of the College.

(b) That the credit shall be based upon the work done, but that not to exceed 4 quarter hours of credit shall be given.

THE NATIONAL SUMMER SCHOOL

During the Summer of 1924, the College conducted the first annual session of The National Summer School. The purpose of this great educational undertaking is to bring to Logan, with its delightful summer climate and its many recreational and vacational features, the greatest educators of the nation and thus to build, in the inter-mountain west, one of the greatest national summer schools.

In 1924, to the resident faculty of the Institution the following visiting faculty was added: Prof. W. C. Allee, Department of Zoology, University of Chicago; Dr. Emmett D. Angell, Lecturer in Recreational Leadership at Yale, Harvard and Wisconsin Universities; Prof. Eliot Blackwelder, Head of the Department of Geology, Stanford University; Prof. E. C. Branson, Kenan Professor of Rural Economics and Sociology, University of North Carolina; Prof. W. H. Carruth, Professor of English, Stanford University; Prof. Henry C. Cowles, Department of Botany, University of Chicago; Prof. Raymond Franzen, Department of Education, University of California; Prof. R. S. Knappen, Department of Geology, University of Kansas; Prof. E. V. McCollum, Professor of Biochemistry, Johns Hopkins University; Dr. R. C. McLain, Supervisor of Health Education, Detroit Michigan; Prof. Frederick Merk, Department of History, Harvard University; Prof. C. O. Reed, Department of Agricultural Engineering, Ohio State University; Miss Elga M. Shearer, Primary Supervisor, City Schools, Long Beach, California; Prof. Frederick J. Turner, Professor of History, Harvard University. Prof. E. L. Thorndike, Professor of Educational Psychology, Columbia University; Dr. Thomas D. Wood, Professor of Physical Education,

Columbia University. In addition, the following lecturers appeared on the Summer School program: Dr. David Starr Jordan, President Emeritus, of Stanford University; Prof. John Adams, Professor of Education, University of London; Prof. Shailer Matthews, Dean of the Divinity School, University of Chicago; Dr. William G. Anderson, Director of the Gymnasium, Yale University; Dr. A. E. Steiner, Professor of Social Science and Applied Christianity, Grinnell College; Dr. A. E. Winship, Editor of the Journal of Education, Boston; Supt. Walter R. Siders, Chairman of the Board of Trustees, National Educational Association.

The first session of the National Summer School was remarkably successful. Over thirteen hundred students were registered, coming from twenty-four states of the Union and five foreign countries. Of these, nearly two hundred and fifty were working for the master's degree.

The National Summer School for 1925 will be just as ambitious as was the 1924 session. Graduate as well as undergraduate work will be stressed and the fullest opportunity provided for teachers to receive certification and for college students to work toward the baccalaureate or advanced degrees.

During the Summer Quarter each department of the College is represented, the courses of instruction being arranged to meet the particular needs of summer students. For the benefit of teachers, numerous courses in education are provided by the Department of Education as part of the regular work of the College. Students desiring to make up conditions or prepare for advanced work are given all assistance possible. The entire equipment of the institution is available for the summer session and every care is taken to preserve the standard and the spirit of the College.

Suggested Courses for Various Professions

Agricultural Economics

The courses in Agricultural Economics aim to prepare men and women for the following services: (1) Commercial farmers or farm managers; (2) County Agricultural agents; (3) managers of farmers' co-operative business associations; (4) wholesale and retail dealers of fertilizers, feed, seeds, grains, produce, farm machinery and equipment; (5) buyers of farm products; (6) salesmen of agricultural commodities; (7) federal, state or private service in marketing farm crops or livestock; agricultural insurance, rural credit, transportation of farm products, agricultural statistics, farm accounting and farm cost accounting; (8) agricultural commerce or related fields such as receivers, shippers, handlers, storers of soil grown products; (9) rural banking agents such as land appraisers and secretaries of national farm loan associations; (10) rural real estate dealers; (11) public service men and agricultural assistants to corporations and institutions as railroads, banks, chambers of commerce, boards of trade, grain exchanges, and associations of various kinds; (12) advertising and publicity service for agricultural products for various organizations, such as the state and national Farm Bureau Federations, the National Wool Growers Association, and the livestock breeders associations; (13) teaching in high schools and colleges; and (14) research or experiment station work in the various divisions of agricultural economics.

SUGGESTED COURSE IN AGRICULTURAL ECONOMICS

Freshman Year:	F	W	S
Chemistry 3, 4, 5	5	5	5
Botany 1, 21	5		5
English 10	3	3	3
Economics 1, 2, 3	3	3	3
Agronomy 1		4	
	16	15	16

Sophomore Year:	F	W	S
Physics 1, 2, 3 and 3 or Chem. 21 and 22	3	3	3
Zoology 1 and 2 or Hort. 101	3	3	
History 1, 2 and 3	3	3	3
Animal Husbandry 1 and 2	5	5	
Physiology or Entomology			3
Agronomy 3			4
Language Group	3	3	3
	17	17	16

Junior Year:	F	W	S
Geology 102, 103 and 104	3	3	3
Agronomy 106, 105	4	3	
Agr. Economics 101, 103, 105	3	3	3
Economics 160			3
Sociology 101, 150	3	3	
Marketing 112 and 113		3	3
Education 101, 103	3		4
	16	15	15

Senior Year:	F	W	S
Agri. Economics 102, 209 and 104	3	3	3
Economics 150		3	
Agronomy 104	2		
Agri. Economics 211, 212, 213	1	1	1
An. Hus. 102	5		
Education 112 and 113		3	3
Bus. Adm. 111 or 113			3
Language Group		3	3
Botany 130	4		
History 114 and 115		3	3
	15	16	16

(Note) Students who are preparing to teach or do Smith-Hughes work need 15 quarter hours more work in the professional subjects than is here outlined. It is suggested that these professional subjects be taken instead of some of the work in the exact science group. Students who know what occupation they are going to follow may concentrate more than this course suggests by substituting the more specialized courses for some of the general ones suggested.

SCHOOL OF AGRICULTURAL ENGINEERING

JUNIOR COLLEGE

Freshman	F	W	S
English 10	3	3	3
Math, 46, 47, 48	5	5	5
Irrig. 1 or Roads 1	5		
Chem. 1 or 2		5	5
Mech. Drawing 11, 12 13	3	3	3
	16	16	16

Sophomore	F	W	S
Economics 1, 2, 3	3	3	3
Physics 20, 21, 22	5	5	5
Math. 107, 108, 109	3	3	3
Surveying 2, 3	3		3
Geol. 118		5	
Materials of Const.			3
Rural Sanitation	3		
	17	16	17

SENIOR COLLEGE

HIGHWAY ENGINEERING

Junior	F	W	S
Physics 150	5		
Contracts	3		
Roads 4		3	
Roads 1 or Irr. 1	5		
Mech. 2	2		
Mech. 102, 103		3	3
Survey 102			5
Roads 101			3
Public Speaking		3	
	15	17	17

Senior	F	W	S
Irrig. 104, 105, 103	5	5	5
Eng. 108, 109, 110 Elec.	2	2	2
Bot. 1 or Bact. 1	5		
Mech. 110, 111, 112	3	3	3
Roads 103		3	
Roads 107			3
Seminar	1	1	1
	16	14	14

IRRIGATION AND DRAINAGE

Junior	F	W	S
Physics 150	3		
Irrig. Inst.	3	3	
Roads 4	3	3	
Roads 1 or Irrig. 1	5		
Mech. 2 (Concrete)	2		
Mech. 101, 102		3	3
Mech. 106, 107		5	3
Irrig. 2, 3 (Hydro.)		3	3
Soils 106, Elect.	4		
Surveying 102			5
Rural Sanitation 106			3
	17	14	17

Senior	F	W	S
Irrig. 104, 105, 103	5	5	5
Eng. 108, 109, 110, Elec.	2	2	2
Bot. 1 or Bact. 1	5		
Mech. 103	3		
Bot. 118, Mech. 104		5 or 3	
Hydro. Irrig. 230 or Roads 103			
Geol. 111 or Roads 103 and Mech. 105		3	5 or 6
Seminar	1		1
	16	15 or 13	13 or 14

COMMERCE AND BUSINESS ADMINISTRATION

The field of commerce or business is now so large that it is impossible for any person to become proficient in all of its branches. However, the business world recognizes several well defined professions or vocations for which trained men and women are always in demand. It is the aim of the School of Commerce and Business Administration to give the student a thorough grounding in the fundamentals of economics and business and then to give him special training that will prepare him to enter one of these recognized business callings. The following schedules of courses have been carefully worked out to guide the student in preparing himself for the vocation he desires to follow.

The courses are not prescribed, but the student who follows them will find at the end of his college career that he has a broad and thorough training. Furthermore, the student who enters college, selects the work he desires to do in life and prepares himself definitely for it has a great advantage over the student who goes through college without any definite objective.

SUGGESTED GENERAL FRESHMAN AND SOPHOMORE COURSES

Freshman Year	Quarter Credits I	II	III
English 10, Sec. 1	3	3	3
Economics 1, 2, 3	3	3	3
Accounting 1, 2, 3	4	4	4
History or Political Science 1, 2, 3	3	3	3
Exact Science Group	3	3	3

Sophomore Year	Quarter Credits I	II	III
Bus. Ad. 1, 2, 3 or Acct. 41, 42, 11	3	3	3
Econ. 10, 30, 31, or Pol. Sci. 1, 2, 3, or Hist. or Edu. 1	3	3	3
Language Group	3	3	3
Math. 60, 61 and Bus. Ad. 131 or Exact Sci. Group	3	3	3
Biology Group	3	3	3

SUGGESTED SPECIALIZED COURSE IN ACCOUNTING

Junior Year	Quarter Credits I	II	III
Acct. 101, 102, 103	3	3	3
Mkt. 101, 102, 103 or Bus. Ad. 104, Econ. 167, Bus. Ad. 131	3	3	3
Bus. Ad. 101, Mkt. 131, 132 or Mkt. 121, Bus. Ad. 112 or Acct. 121	3	3	3
Language Group	3	3	3
Art. 31	3		
Biology Group		3	
Elective			3

Senior Year	Quarter Credits I	II	III
Acct. 131, 132, 133	3	3	3
Pol. Sci. 106, 107, Mkt. 171	3	3	3
Soc. 150, 160		3	3
Bus. Ad. 113	3		
Language Group	3	3	3
Elective	3	3	3

SUGGESTED SPECIALIZED COURSE IN BANKING

Junior Year	Quarter Credits I	II	III
Mkt. 101, 102, 103	3	3	3
Mkt. 111, 112, 113 or Acct. 101, 102, 103	3	3	3
Pol. Sci. 106, 107, Bus. Ad. 131	3	3	3
Language Group	3	3	3
Elective	3	3	3

Senior Year	Quarter Credits I	II	III
Bus. Ad. 104, Econ. 167, Mkt. 171	3	3	3
Mkt. 121, Econ. 110, 160	3	3	3
Econ. 180, 181, 182	1	1	1
Bus. Ad. 113, 193	3	3	3
Elective	5	5	5

SUGGESTED SPECIALIZED COURSE IN BUSINESS ADMINISTRATION

Junior Year	Quarter Credits I	II	III
Mkt. 101, 102, 103	3	3	3
Mkt. 111, 112, 113	3	3	3
Pol. Sci. 106, 107, Bus. Ad. 131	3	3	3
Pol. Sci. or History or Soc.	3	3	3
Bus. Ad. 101	3		
Electives			3
Biology		3	

Senior Year	Quarter Credits I	II	III
Mkt. 121, Econ. 110	3	3	3
Acct. 101, 102, 103	3	3	3
Econ. 167		3	
Bus. Ad. 104	3		
Language Group	3	3	3
Bus. Ad. 112, 113	3	3	3
Bus. Ad. 211	3	3	3

SUGGESTED SPECIALIZED COURSE IN COMMERCIAL TEACHING

Freshman Year	Quarter Credits I	II	III
Econ. 1, 2,	3	3	3
Eng. 10, Sec. 1	3	3	3
Steno. 1, 2, 3	4	4	4
Typewriting	1	1	1
Hist. or Pol. Sci. or Edu.	3	3	3
Exact Science	3	3	3

Sophomore Year	I	II	III
Steno. 6, 7, 8	4	4	4
Pol. Sci. or Hist. or English	3	3	3
Biology Group	3	3	3
Acct. 1, 2, 3	4	4	4
Educ. 31, 32, 33	3	3	3

Junior Year	Quarter Credits I	II	III
Educ. 101, 102, 103	3	3	3
Acct. 101, 102, 103	3	3	3
Bus. Ad. 1, 2, 3	3	3	3
Pol. Sci. 106, 107	3	3	
Bus. Ad. 131			3
Biol. Group	3		
Elective	2	5	5

Senior Year	I	II	III
Edu. 111	3		
Mkt. 101, 102, 103	3	3	3
Bus. Ad. 104, Econ. 167, 160	3	3	
Pol. Sci. or Hist. or English	3	3	6
Soc. 150, 160	3	3	
Elective	1	4	6

SUGGESTED SPECIALIZED COURSE IN MARKETING

Junior Year	Quarter Credits I	II	III
Mkt. 101, 102, 103	3	3	3
Mkt. 111, 112, 113	3	3	3
Pol. Sci. 106, 107	3	3	
Mkt. 161, 162, 163	2	2	2
Advertising Art	2	2	2
Biology Group	3		
Elective		3	6

Senior Year	Quarter Credits I	II	III
Bus. Ad. 104, Econ. 167, Bus. Ad. 131	3	3	3
Mkt. 121	3		
Mkt. 171	3	3	3
Advertising Art	1	1	1
Elective	3	3	
Soc. 150, 160	3	3	
Econ. 110		3	
Elective			9

SUGGESTED SPECIALIZED COURSE IN SECRETARIAL WORK

Freshman Year	Quarter Credits I	II	III
English 10,	3	3	3
Typewriting 1	1	1	1
Stenography 1	4	4	4
Office Mgt. 10, 1, 2	1	1	1
Acct. 1, 2, 3	4	4	4
Economics 1, 2, 3	3	3	3

Sophomore Year	I	II	III
Hist. or Pol. Sci.	3	3	3
Typewriting 2	1	1	1
Stenography 2	4	4	4
Language Group	3	3	3
Biology Group	3	3	3
Elective	2	2	2

Junior Year	Quarter Credits I	II	III
Mkt. 101, 102, 103	3	3	3
Pol. Sci. 101, 102, 103	3	3	3
Bus. Ad. 1, 2, 3	3	3	3
Acct. or Exact Sci. Grp.	3	3	3
Biology Group	3		
Electives		3	3

Senior Year	I	II	III
Mkt. 161, 162, 163 or Eng. 125, 126, 127	2	2	2
Pol. Sci. 106, 107	3	3	
Bus. Ad. 131			3
Of. Mgt. 20		3	
Bus. Ad. 104	3		
Econ. 167, 160		3	3
History	3	3	3
B. A. 101	3		
Elective	2	2	5

DAIRY MANUFACTURING

FRESHMAN YEAR

Chemistry 1	Inorganic Chemistry	5 Credits
Chemistry 2	Inorganic Chemistry	5 Credits
Animal Husbandry 1	Market Types	5 Credits
Dairy Husbandry 1	Elements of Dairying	4 Credits
Botany 1	General Botany	5 Credits
English 5	College Grammar	5 Credits
Dairy Husbandry 2	Market Milk	3 Credits
Dairy Husbandry 6	Dairy Arithmetic	1 Credit
Dairy Husbandry 7	Varieties of Cheese	2 Credits
Economics 1	General Economics	3 Credits
Economics 2	General Economics	3 Credits
Economics 3	General Economics	3 Credits
Bacteriology 1	General Bacteriology	5 Credits

SOPHOMORE YEAR

Chemistry 21	Organic Chemistry	4 Credits
Chemistry 22	Organic Chemistry	4 Credits
Animal Husbandry 2	Breed Types	5 Credits
English 10	Composition	3 Credits
English 10	Composition	3 Credits
English 10	Composition	3 Credits
Accounting 1	Technic of Bookkeeping	4 Credits
Accounting 2	Bkpng and Acc. Practice	4 Credits
Dairy Husbandry 5	Dairy Engineering	3 Credits
Dairy Husbandry 4	Ice Cream and Ices	3 Credits
Public Speaking 4	Extemporaneous Speaking	3 Credits
Public Speaking 5	Extemporaneous Speaking	3 Credits
Physiology 1	Physiology	5 Credits

JUNIOR YEAR

Chemistry	Dairy Chemistry	4 Credits
Chemistry	Dairy Chemistry	4 Credits
Dairy Husbandry 101	Judging Dairy Products	1 Credit

Dairy Husbandry 102	Testing and Inspection	2 Credits
Dairy Husbandry 103	Buttermaking	5 Credits
Dairy Husbandry 104	Cheesemaking	4 Credits
Bacteriology 104-105	Dairy Bacteriology	6 Credits
Agronomy 106	Soils	4 Credits
Farm Mechanics 12	Farm Motors	5 Credits
Dairy Husbandry 3	Dairy Technology	2 Credits
Dairy Husbandry 111	Dairy Cattle Judging	1 Credit
Dairy Husbandry 12	Breeds of Dairy Cattle	3 Credits
Agronomy 101	Crop Production	5 Credits

SENIOR YEAR

Marketing 102	Advertising	3 Credits
English 125, 126, 127	Journalism	6 Credits
Accounting	Creamery Accounting	4 Credits
Marketing 103	Salesmanship	3 Credits
Marketing 112	Marketing Agr. Products	3 Credits
Political Science 104, 105	Commercial Law	6 Credits
Dairy Husbandry 105	Mgt. of Dairy Plants	5 Credits
Dairy Husbandry 110	Dairy Production	5 Credits
Animal Husbandry 106	Adv. Livestock Judging	3 Credits
Animal Husbandry 102	Practical Feeding	5 Credits
Agricultural Economics 102	Farm Management	3 Credits

ELEMENTARY TEACHERS

	Quarter Credits				Quarter Credits		
Freshman Year	I	II	III	Sophomore Year	I	II	III
°English Literature	3	3	3	Sociology	3	3	3
History	3	3	3	Econ. Agri. or H. Econ.	3	3	3
Science	3	2	3	History of Education	3	3	3
Art Educational	3	3	3	°Principles of Edu. or Methods of Teaching	3		
Music, Public School	2	2		°Educ. Psychology		3	
°Psychology, Intro.	3			°School Sanitation			3
°Physical Development and Health Educa.		3		°Practice-Teaching	5-12	5-12	5-12
°Required for Certification				°In the Logan City Schools			

HOME ECONOMICS

Suggested grouping of subject matter for four year course leading to degree of Bachelor of Science in Home Economics.

Freshman Year	I	II	III	Sophomore Year	I	II	III
Chemistry 1, 2	5	5		Bacteriology 1	5		
Botany 1, or Physiol. 1			5	Foods 20	3	3	3
English 10	2	2	2	Economics 1, 2, 3	3	3	3
Art 1, 2, 3	2	2	8	French, German or English	3	3	3
Textiles 10	2	2	2	Textiles 20	3	3	
Household Ad. 10	1	1	1	Eng. 195 (Lit. for Children)			3
Phychology 1	3	3		Household Adm. 25 (Home Nursing)		3	3
History 3 or 32			3	Physical Ed.	1	1	1
Physical Ed.	1	1	1				
Totals	16	16	16	Totals	18	16	16

JUNIOR AND SENIOR YEARS

All students must complete the group requirements for graduation (major subject 30 hours; minor 18 hours, to include work in both departments other than department in which major work is done; exact science 18 hours; biological science 18 hours; social science 18 hours; language 24 hours; special group chosen under

direction of School Dean 18 hours), together with sufficient additional work to make a total of 180 hours exclusive of the required work in Physical Education.

All students wishing to qualify as teachers of Home Economics in Utah High Schools should, and under the Smith-Hughes Act must, include all of the work outlined above for the Freshman and Sophomore years and complete the requirements for graduation with a major in either Foods or Textiles. They must elect Household Administration 122 (Home Furnishing and Decoration) H. A. 150 (Household Management), H. A. 125 (Mothercraft), Education 120, 121, 122 (Special methods in Home Economics) together with sufficient additional education subjects to meet the Utah State Board of Education requirements (36 hours for the State High School Certificate.)

HORTICULTURE

FRESHMAN YEAR

Name of Course	Dept. No.	Quarter Credits I	II	III
General Agricultural Botany	Botany, 21, 22, 23	5	5	5
Economic Entomology	Entomology 4	4		
Freshman Composition	English 10, Sec. 2	3	3	3
Extemporaneous Speaking	Pub. Speak 5		3	
Horticulture	Hort. 1	4		
Olericulture	Hort. 3			3
Market Types	An. Hus. I Sec. 2		5	
General Poultry	Poultry 1			4

SOPHOMORE YEAR

Inorganic Chemistry	Chem. 1, 2, Sec. 2	5	5	
General Bacteriology	Bact. 1	3		
Elementary General Zoology	Zoo. 1, 2 Sec. 2		3	3
European History	History 3, Sec. 1			3
General Economics	Econ. 1, 2, 3, Sec. 3	3	3	3
Plant Propagation	Hort. 2		3	
Economic Entomology	Ent. 5	4		
Agriculture	Ent. 6, 7		3	3
Irrigation and Drainage Prac	Irr. and Drain. 1			5

JUNIOR YEAR

Plant Pathology	Bot. 130, 131	4	4	
Flowering Plants	Bot. 101			4
General Geology	Geol. 102, 103, 104	3	3	3
Systematic Pomology	Hort. 102	3		
Fruit Production	Hort. 103		4	
Orchard Practice	Hort. 104			3
Soils	Agronomy 106	4		
General Crops	Agronomy 101	2	5	5
Electives				

SENIOR YEAR

Practical Feeding	An. Hus. 101	5		
Genetics	Zoology 111	4		
Dairy Production	Dairy Hus. 110			5
Farm Management	Agr. Ec. 102	3		
Marketing Farm Products	Mark. 112		3	
Market Reports and Practices	Mark. 113			3
Plant Breeding	Agronomy 109		4	
Commercial Horticulture	Hort. 105	3		
History of Cultivated Plants	Hort. 107		2	
Farm Surveying	Ag. Surv. 1			3
Journalism	Eng. 125, 126, 127	2	2	2
Electives			3	2

PHYSICAL EDUCATION FOR WOMEN

Freshmen	I	II	III
English 10		3	3
English 5	3		
Chemistry 1,		5	5
or			
Physics 1, 2, 3	3	3	3
History	3	3	3
Physiology		3	3
Music 4, 5, 6	3	3	3
P. E. 13, 14, 15	1	1	1
Bacteriology	5		

Sophomores	I	II	III
Intro. Psychology	3		
Hygiene		3	
Anatomy			3
English	3	3	3
Modern Language	3		
Plays and Games	2	2	2
P. E. 16, 17, 18	1	1	1
Primary Methods	3		
Home Nursing		3	3

Juniors			
Kinesiology	3	3	
Cor. Gymnastics			3
Psychology Prin. of	3		
Psychology of Adol.		3	
Advanced Educ. Psy.			3
Dramatic Game	2		
Folk Dancing	1	1	1
Interpretive Dancing	1	1	1
Athletics	1	1	1
Mothercraft	3		
Public Speaking	2	2	2

Seniors			
Phys. Diag. & Meas.			3
Community Recreation		2	2
Interpretive Dancing	1	1	1
Ad. Folk Dancing	1	1	1
Meth. of Teach. P. E.	2	2	2
Swimming	1	1	1
History of Education	3	3	3
History of Costume	3		

SCOUT EXECUTIVES

Quarter Credits

First Year

Course			
Economics 1, 2, 3	3	3	3
	F	W	S
Chemistry 1, 2	5	5	
Bacteriology 1			5
Botany 21, 23	5		5
Physiology		5	
English 50, 51, 52	3	3	3
Music 21, 22, 23	1	1	1
Totals	17	17	17

Second Year

	F	W	S
Zoology 1, 2	3	3	
Entomology 2			3
Physics 1, 2, 3	3	3	3
English 10	2	2	2
History 15	3		
Bus. Ad. 1, 2, 3	3	3	3
Education 33			3
Political Science 1, 2, 4,	3	3	3
Art 4		3	
Totals	17	17	17

Third Year

	F	W	S
Accounting 1	4		
Geology 102, 103, 104	3	3	3
Education 101, 102, 103	3	3	3
Public Speaking 4, 5	3	3	
English 170, 195		3	3
Education 10, 11, 21	2	2	2
Bus. Ad. 101, 104, 106	3	3	3
Botany 101			3
Totals	18	17	17

Fourth Year

	F	W	S
Mkt. 101, 102, 103	3	3	3
Mkt. 141, 142, 163	3	3	2
Education 107	3		
Education 24	2	2	2
English 130, 131	3	3	
Political Science 102			3
Mech. Drawing 3			3
Sociology 101	3		
Rural Sanitation 106		3	
Elective		3	3
Totals	17	17	16

SMITH-HUGHES TEACHER TRAINING

The Smith-Hughes Teacher Training Work in the Utah Agricultural College is authorized and subsidized by the Federal Government through the Smith-Hughes Act and authorized by an act of the 1919 session of the Legislature of the State of Utah. It is under the direction of the State Board for Vocational Education and its agents the State Supervisors.

As at present organized, the Department of Education aims to train Smith-Hughes teachers for positions in agriculture, farm mechanics, home economics.

Training of Smith-Hughes teachers in Agriculture.

1. General requirements:
   a. Fifteen units of high school credit or the equivalent is required for entrance.
   b. For graduation, 180 Quarter hours and the necessary work in physical education and military science will be required of all students.
   c. State credentials to teach require 36 Quarter hours in professional studies, 12 of which may be related.

Following is a suggestive course for students in residence who are prospective Smith-Hughes teachers:

Freshman Year	I	II	III
Chemistry	5	5	5
Botany	5	5	5
English	2	2	2
Agronomy	4	4	
Horticulture			4
Gov. of U. S.	3		
State Gov.		3	
Mus. Gov.			3

Junior Year			
Geology	5	5	
Bacteriology	5		
Personal Health	4		
Agronomy Soils	4		
Economics		3	3
Irrigation			5
Prin. of Psychology	3		
Psy. of Adol. (Sec. Edu.)		3	
Edu. Psychology			3
Farm Mechanics		5	
English	2	2	2

Sophomore Year	I	II	III
Physics	3	3	3
Zoology	3	3	
History	3	3	
Physiology			3
Vet. Science	4		
Animal Husbandry		5	3
Pub. Speaking	3		
Poultry			4
Pub. Speaking or Engl. Literature			3
Hist. of Mod. Ed., Incl. Voca. Ed.			3

Senior Year			
Sc. of Education	3		
Rural Edu.		3	
Meth. of Teach. Agr.	2	2	2
Apprentice Teaching	10	10	10
Feeds and Feeding	5		
Marketing		3	
Breeding		5	
Horticulture			5
Farm Management	3		
Rural Sociology	3		
Dairying	4		
Entomology		4	

By arrangement with the School Board of Logan City and Cache County, observations will be taken and apprentice-teaching conducted in the Smith-Hughes classes in agriculture in the Logan and North Cache and South Cache High Schools, during the Fall, Winter and Spring quarters.

Opportunity will be afforded in connection with the same classes to supervise Smith-Hughes projects during the summer. See Outline following.

Students in Smith-Hughes Teaching in Agriculture are advised to elect their technical and professional studies as near the following percentages as conditions will permit:

a. Technical agriculture 40 per cent so distributed as to prevent too narrow specialization. The work should include at least one basic course in each important department of applied agriculture.
b. The related work in the biological and physical sciences 35 per cent.
c. Professional studies preparing for Smith-Hughes Teaching 15 per cent.
d. Language and Literature 10 per cent.
e. Social Science 10 per cent.

Project Management and Practice in Agriculture.

Candidates for graduation in Agriculture must take an examination in farm practice with the department head, with whom they are majoring, the director of the School of Agriculture, and one other man to be selected by them.

The purpose of this examination is to insure adequate practical experience in the technique of farming, without which a man is not a good teacher of Agriculture or a good farm manager.

To prepare a man for this examination, farm practice is considered under three heads:

1. Elementary farm practice, technique, proficiency in hitching up a team, in handling a team on the wagon, plow, or grader; adjusting harness, milking, building a fence, preparing land for irrigation, etc.
2. Project management. Some unit of the farming business planned and conducted to a conclusion under the direction of the professor of farm practice, the head of the department in whose field the project comes, and the teacher of methods in Agriculture.
3. Farm Management. The whole business of a farm planned and run as a business under the same leadership, in which complete records are kept.

Students who have had farm experience can readily pass 1. All Smith-Hughes students should take 2, for which satisfactory examination in 1 should be prerequisite. It is assumed that after going thoroughly through one project, the organization of other projects will be within the student's power. Smith-Hughes students should take 3 for which 2 is prerequisite. They should be able to analyze a farmer's business and point out the profitable and the unprofitable units of it and tell why. Such training should be prerequisite to the teaching of Agriculture.

The Summer Quarter.

Professional and Technical courses are being planned for the Summer Quarter for the convenience of those teachers in service desiring to qualify for Smith-Hughes teaching of Agriculture. These courses will be:

1. Undergraduate, for elementary school teachers working for degrees.
2. Graduate, for Smith-Hughes workers now in service who can get furloughs to take these courses thereby increasing their efficiency. The State Supervisor of Smith-Hughes Agriculture will cooperate in planning and giving this work.

Helping Teachers in Service.

The Smith-Hughes Teacher Training Department of the U. A. C. will cooperate with the State Department in training Smith-Hughes teachers in service. This will be done by means of:

1. District and Regional Conferences.
2. Visiting Schools and helping inexperienced teachers plan and organize their work.
3. By preparing Outlines, Bulletins, and "News Letters."

Departments of Instruction

(Arranged alphabetically)

1. Accounting and Business Practice
2. Agricultural Economics
   (Farm Management)
3. Agricultural Engineering
   a. Agricultural Surveying
   b. Applied Mechanics and Design
   c. Highway Engineering
   d. Rural Architecture

e. Rural Sanitation
4. Agronomy
5. Animal Husbandry
   a. Poultry Husbandry
6. Art
7. Bacteriology and Physiological Chemistry
8. Botany
9. Business Administration
10. Chemistry
11. Correspondence Studies
12. Dairy Husbandry
13. Economics
14. Education and Pedagogy
15. English
16. Entomology
17. Farm Management, Extenison
18. Farm and Auto Mechanics
    a. Auto Mechanics
    b. Farm Mechanics
    c. Ignition, Starting and Lighting
    d. Oxy-acetylene, Electric Arc and Resistance Welding
    e. Tractor Repair and Operation
    f. Vulcanizing and Tire Repair
19. Foods and Dietetics
20. Geology
21. History
22. Home Management, Extension
23. Horticulture
24. Household Administration
25. Irrigation and Drainage
26. Junior Extension
27. Library Economy
28. Marketing (Including Advertising and Selling)

29. Mathematics
30. Mechanic Arts
    a. Forging and General Blacksmithing
    b. Machine Work
    c. Mechanical Drawing
    d. Woodwork and Housebuilding
31. Methods of Experimentation and Extension
32. Military Science and Tactics
33. Modern Languages and Latin
34. Music
35. Physical Education
    a. For Men
    b. For Women
36. Physics
37. Physiology
38. Political Science
39. Public Speaking
40. Range Management
41. Rural Public Health
42. Sociology
43. Stenography and Typewriting
44. Textiles and Clothing
45. Veterinary Science
46. Zoology

RECITATION TABLE

The recitation hours are sixty minutes in duration and begin at 8:00 a. m. The following shows the entire schedule:

1st hour, 8:00-9:00	5th hour, 12:00-1:00
2nd hour, 9:00-10:00	6th hour, 1:00-2:00
3rd hour, 10:00-11:00	7th hour, 2:00-3:00
4th hour, 11:00-12:00	8th hour, 3:00-4:00

9th hour, 4:00-5:00.

Courses of Instruction

ACCOUNTING AND BUSINESS PRACTICE

P. E. Peterson, *Professor.*
W. E. Thain, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1. Technic of Bookkeeping. Development of the principles of debit and credit, functions of the account, technic of recording the business transactions in the records, preparation of statements and closing the books. Two lectures, six hours practice work each week. Four credits.

Fall quarter, Lec. T. Th. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Winter quarter, Lec. M. W. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Thain

2. Bookkeeping and Accounting Practice. A continuation of Accounting 1, introducing more advanced technic, such as controlling accounts, accruals, deferred items, depreciation, special columns and special journals, departmentalization, etc. Partnership accounting is also taken up. Prerequisite, Accounting 1. Two lectures, six ours practice work each week. Four credits.

Winter quarter, Lec. T. Th. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Spring quarter, Lec. M. W. 2:00. Practice hours any days from 2:00 to 5:00. Room 302 Main.

Thain

3. CORPORATION AND FACTORY ACCOUNTING. Accounts peculiar to corporations, as accounting for capital stock, treasury stock, surplus, reserves, dividends, etc. Voucher accounting. Accounting for manufacturing enterprises where no cost system is in use. Prerequisites, According 1 and 2. Two lectures, six hours practice work each week. Four credits.

Spring quarter. Lec. T. Th. 2:00. Practice hours any day from 2:00 to 5:00. Room 302 Main.

Thain

4. BOOKEEPING FOR CO-OPERATIVE ENTERPRISES. (Not given in 1924-25.)

5. FARM BOOKKEEPING. Principles of bookkeeping and accounting as applied to the special needs of different types of farming. Single and double entry. Two lectures, six hours practice work each week. Practice hours to be arranged with instructor. Fall quarter. Four credits.

Lec. T. Th. 1:00. Room 302 Main.

Thain

6. SHOP ACCOUNTING. (Not given in 1924-25.)

11. FACTORY ACCOUNTING. An elementary study of the principles and methods of cost accounting and their application to a specific problem. This course is a prerequisite for Accounting 111 and 112. Two lectures, six hours practice work each week. Prerequisite, Accounting 1, 2, 3. Spring quarter. Four credits.

Lec. M. W. F. 9:00. Room 302 Main. *Thain*

21. ACCOUNTS OF BUILDING AND LOAN ASSOCIATIONS, BANKS AND TRUST COMPANIES. A practical course in the organization, business practice and accounting methods of building and loan associations, banks and trust companies. Account analysis in

commercial banks. Special attention will be given to labor saving methods and mechanical equipment. Prerequisites, Accounting 1, 2, and 3. Two lectures, six hours practice work each week. Practice periods to be arranged with instructor. Spring quarter. Four credits.

(Not given 1924-25.)

31. RETAIL AND DEPARTMENT STORE ACCOUNTING. (Not given in 1924-25.)

41, 42. INTERMEDIATE ACCOUNTING PROBLEMS. Problems will cover the opening and closing of the books, adjusting entries; preparation of statements of different lines of business and for different purposes; analysis of statements, and fiduciary accounts. Prerequisites, Accounting 1, 2, and 3. Fall and Winter quarters. Three credits.

M. W. F. 9:00. Room 302 Main.

Thain

51. DAIRY MANUFACTURING ACCOUNTS. Accounting methods for cheese and butter factories. Two sets will be worked, a simple double entry system and one in which the cost to manufacture will be determined. The special accounting problems of the co-operative enterprise will be examined. Prerequisites, Accounting 1 and 2. Two lectures, six hours practice work per week. Practice hours to be arranged with instructor. Spring quarter. Four credits.

Lec. T. Th. 8:00. Room 302 Main.

Thain

SENIOR COLLEGE COURSES

101, 102, 103. PRINCIPLES OF ACCOUNTING. Essentially a course in theory with practice reduced to a minimum. Emphasis will be placed upon the interpretation of accounts. The course is intended to meet the needs of the general student, as well as those who are planning to enter the accounting profession. It is desirable that a general course in Economics and Mathematics

60 precede this course. Graduate credit may be allowed for this course upon completion of additional work. Lectures and assigned problems. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. S. 9:00. Room 302 Main.

Peterson

107. HOUSEHOLD ACCOUNTS. The practical application of accounting principles and practice to home management. Lectures and assigned problems. Fall quarter. Four credits. Practice hours to be arranged with the instructor.

Lec. T. Th. 8:00. Room 302 Main.

Peterson

111, 112. INDUSTRIAL ACCOUNTING. A detailed study of the principles of cost accounting as applied to various lines of industry. Particular stress will be laid upon methods of distributing burden and wage systems. Problems will be used to illustrate the principles developed. (See Accounting 11 for prerequisite.) Winter and Spring quarters. Three credits each quarter.

(Not given 1924-25.)

121. ACCOUNTING PROBLEMS. This course aims to develop analytical power, initiative and resourcefulness in the handling of accounting problems. The problems are largely drawn from the Institute examinations. Prerequisites, Accounting 101, 102, 103 or their equivalent. Lectures and assigned problems. Fall quarter.

Lec. M. W. F. 10:00. Room 302 Main.

Thain

122. ACCOUNTING PROBLEMS. This course aims to develop the application of accounting to special lines of business such as railways, public utilities, financial institutions, etc. Alternates with course 121.

(Not given 1924-25.)

131, 132. AUDITING THEORY AND PRACTICE. A study of the principles of auditing with assigned problems. For senior stu-

dents. A major subject for students who plan to enter the accounting profession. Graduate credit may be allowed upon completion of additional work. Two lectures and two practice periods. Fall and Winter quarters. Four credits each quarter. Practice periods to be arranged with the instructor.

Lec. M. W. 8:00. Room 302 Main.

Peterson

133. AUDITING PROCEDURE. The procedure in making an audit and the proper reporting of its constitute the major part of this course. Special points in the audit of different classes of business will be studied. Where possible, the student will be given an opportunity to do actual field work. Graduate credit may be allowed upon the completion of additional work. Prerequisite, Accounting 131, 132. Four credits. Practice hours to be arranged with the instructor.

(Not given in 1924-25.)

161. MUNICIPAL ACCOUNTS. A study of the accounting systems of cities, counties and states. The importance of the budget in municipal expenditures. A course in public finance should precede or parallel this course. Prequisites, Accounting 101, 102 and 103 and Political Science 2. Lectures and assigned problems, Four credits.

(Not given 1924-25.)

171. CONSTRUCTIVE ACCOUNTING AND SYSTEM BUILDING. For Senior students. This course involves a general study of the various types of accounting systems, the determination of a proper classification of accounts and the designing of the necessary forms preparatory to their being submitted to the printer. Prerequisites, a thorough knowledge of accounts and Mechanical Drawing 41. Graduate credit may be allowed upon completion of additional work. Four credits. Spring quarter. Practice hours to be arranged with instructor.

Lec. M. W. 8:00. Room 302 Main.

Peterson

181. BUDGETS. The course involves a very careful study of the need for budgetary control, of the preparation of departmental budgets and their co-ordination with the financial budget, the application of budgetary control to manufacturing, merchandising and non-commercial enterprises, and of the estimated balance sheet and profit and loss statement. Fall quarter. Three credits. Prerequisites, Accounting 101 and 102 or their equivalent.

(Not given 1924-25.)

OFFICE MANAGEMENT

P. E. PETERSON, *Professor.*
W. E. THAIN, *Assistant Professor.*
THELMA FOGELBERG, *Instructor.*

JUNIOR COLLEGE COURSES

1. CALCULATOR OPERATION. Methods of correct addition on calculators. Accuracy and speed secured. Three practice hours each week. Fall quarter. One credit. Room 305 Main.

Sec. 1. M. W. F. 10:00.
Sec. 2. M. W. F. 2:00.

Fogelberg

2. CALCULATOR OPERATION. Methods of multiplication, extending and checking invoices, and chain discount. Accuracy and speed secured. Three practice hours each week. Winter quarter. One credit. Room 305 Main.

Sec. 1 M. W. F. 10:00.
Sec. 2. M. W. F. 2:00.

Fogelberg

3. CALCULATOR OPERATION. Methods of subtracting and division. Accuracy and speed secured. Three practice hours each week. Spring quarter. One credit. Room 305 Main.

Sec. 1. M. W. F. 10:00.
Sec. 2. M. W. F. 2:00.

Fogelberg

10. MACHINE BOOKKEEPING—BURROUGHS. Instruction in the correct operation of the Bourroughs Posting machine. Practice given in bank and ordinary retail store machine bookkeeping. Accuracy and speed secured. Four practice hours each week. Fall or Winter quarter. One credit. Room 305 Main.

Only six students can be accomodated.

Time to be arranged with the instructor.

Sec. 1. M. T. W. F. 9:00.

Sec. 2. M. T. W. F. 10:00.

Sec. 3. M. T. W. F. 2:00.

Fogelberg

15. MACHINE BOOKKEEPING—ELIOTT-FISHER. Instruction in the operation of the Elliott-Fisher bookkeeping machine. Five practice hours each week. Fall or Winter quarter. One credit. Room 305 Main.

Only three students can be accommodated.

Sec. 1. Daily, except S. 9:00.

Sec. 2. Daily, except S. 10:00.

Sec. 3. Daily, except S. 2:00.

Fogelberg

SENIOR COLLEGE COURSES

120. OFFICE MANAGEMENT. Study of office location, layout, equipment and administration; selection and training of employees; office records; filing methods. Prerequisite, Accounting 1 or 101. Winter quarter. Three credits.

M. W. F. 8:00.

Thain

MAJOR IN OFFICE MANAGEMENT

Subject to the approval of the Head of the Department a student may select from the following list of courses a major in Office Management and Secretarial Studies.

Business Administration, 1-2.

Political Science, 1-2-3.

Office Management 120.
Accounting 181.
Business Administration 111.
Business Administration 113.
Stenography 101.
Business Administration 101.
Marketing 102-103.
Marketing 161.
Marketing 162-163.

AGRICULTURAL ECONOMICS

FARM MANAGEMENT

*E. B. Brossard, *Professor.*
Von T. Ellsworth, *Instructor.*

Note: Students in either the School of Agriculture or the School of Commerce and Business Administration may major in this department.

Students in the School of Agriculture may present credits in any of the following courses towards their major: Agronomy 101, and 106; Animal Husbandry 1 and 102; Economics 1, 2, 3, 120 and 121; Horticulture 1, 2, 3; and Range Management 1. They will all be required to take Agricultural Economics courses 101, 102, 103, 104, 105, 211, 212 and 213.

Students in the School of Commerce and Business Administration may submit credits in any of the following courses towards their major: Accounting 101, 102, 103, 104 and 105; Agronomy 101, 106 and 114; Animal Husbandry 1 and 102; Business Administration 8; Economics 25, 30, 120, 121, 160, 167, 150 and 180; Horticulture 1, 2, 3; Marketing 71, 102, 103, 111, 131, 132 and 141; Political Science 104, 105 and 106; Range Management 1; and Sociology 101, 150 and 160. All such students will be required to take Agricultural Economics courses 101, 102, 103, 104, 105, 211, 212 and 213.

SENIOR COLLEGE COURSES

101. PRINCIPLES OF AGRICULTURAL ECONOMICS. A general course in the principles and problems of agricultural economics, including production on the farms, consumption of the products of the farms and the distribution of the agricultural income. Prerequisites, Economics 1, 2, 3 or 120, 121. Fall quarter. Three credits.

M. W. F. 9:00. Room 132 Main.

*Absent on Leave.

Ellsworth

102. FARM MANAGEMENT. A general course in the principles of farm management. A study of the problems involved in choosing, buying, planning, organizing and managing a farm. Discussions of proper size, balance, diversity and quality of farm business; relation of livestock, crops, pastures and ranges; efficient use of equipment and man and horse labor. Prerequisites, Economics 1, 2, 3 or 120, 121; Animal Husbandry 1 or 102; and Agronomy 101 (or equivalent) and 106. Fall quarter. Three credits.

Lec. T. S. 10:00. Lab. M. 2:00 to 5:00. Room 132 Main.

Ellsworth

103. FARM COST ACCOUNTING. Theory of farm cost accounting combined with practice in keeping a simple yet complete set of farm cost accounts. This course stresses the analyzing and interpreting of results and their use in organizing and managing the farm business. Prerequisite, Accounting 5. Winter quarter. Three credits.

Lec. M. W. 11:00. Lab. F. 2:00 to 5:00. Room 132 Main.

Ellsworth

104. TYPES OF FARMING. A study of the natural and economic factors affecting types of farming in Utah, the United States and other countries, to determine the most profitable types for given times and conditions, and the needed adjustments in

types to meet changing conditions. Prerequisite, Agricultural Economics 102. Spring quarter. Three credits.

Lec. M. W. 11:00. Lab. F. 2:00 to 5:00. Room 132 Main.

Ellsworth

105. RURAL CREDITS. A study of the credit needs of farmers and methods of meeting these needs. This involves a study of bank credit and agriculture, the Federal Farm Loan Act, the Federal Intermediate Credits Act, co-operative credit and any new legislation needed to provide for financing adequately the farming business of the country. Winter quarter. Three credits.

M. W. F. 9:00. Room 132 Main.

Ellsworth

GRADUATE COURSES

206. LAND ECONOMICS. A study of such important problems of land economics as the following: (1) the history of nations as affected by their land policies, (2) the concept of private property in land, (3) land classification, (4) land utilization, (5) land valuation, (6) land taxation, (7) land settlement and its relationship to water and irrigation institutions, (8) land ownership and tenancy and their desirability and disadvantages, (9) range and ranch land, (10) economics of forest land, and (11) transportation and the use of land. Open only to seniors and graduate students. Fall quarter. Two credits.

Th. 10:00 to 12:00. Room 132 Main.

Ellsworth

207. TENANCY. History and extent of farm tenancy in the United States. Experience of European countries with tenancy problems. Tenancy as a social institution. Tenancy as a step in the economic ladder of progress of farmers. Evils of tenancy. Suggested methods of diminishing or eliminating the evils of tenancy. Methods of renting farms. Types of farming and the farm

lease contract. Essentials of a good farm lease. Prerequisite, Agricultural Economics 102. Spring quarter. Two credits.

Th. 10:00 to 12:00. Room 132 Main.

Ellsworth

208, 209, 210. RESEARCH. Special investigations in Agricultural economics or farm management. Only those senior or graduate students who present an acceptable plan for an investigation will be admitted. Fall, Winter and Spring quarters. Two to five credits each quarter. Three hours work each week for each credit hour granted.

Time and credit to be arranged with instructor.

Ellsworth

211, 212, 213. SEMINAR. All senior and graduate students majoring in this department are required to take part in these round-table discussions of current problems and recent publications in Agricultural Economics and Farm Management. Fall, Winter and Spring quarters. One credit each quarter.

W. 7:20 p. m. Room 132 Main.

Ellsworth

AGRICULTURAL ENGINEERING (See Page 217)

AGRICULTURAL SURVEYING (See Page 217)
APPLIED MECHANICS AND DESIGN (See Page 218)
HIGHWAY ENGINEERING (See Page 220)
RURAL ARCHITECTURE (See Page 222)
RURAL SANITATION (See Page 224)

AGRONOMY

*GEORGE STEWART, *Professor.*
DON WARREN PITTMAN, *Associate Professor.*
DAVID STOUT JENNINGS, *Associate Professor.*
MOYER DELYN THOMAS, *Associate Professor.*
AARON F. BRACKEN, *Assistant Professor.*
DELMAR C. TINGEY, *Instructor.*
CARL FRISCHKNECHT, *Assistant Instructor.*

Note: Students who major in Agronomy are expected to take courses 1, 2 or 3, 106, 108, 109, 111, 112, 113, 104 or 110; one of these three: 114, 116, 117; and enough additional courses to make 30 credits. Irrigation 1 and Agricultural Economics 102 are recommended in the minor; one of these may, if desired, be used in the major group, providing the grade obtained is "B" or better.

JUNIOR COLLEGE COURSES

1. CEREAL CROPS. The history, cultivation, production and marketing of cereal crops; a basis for judging and grading plant products. Must be preceded or accompanied by Chemistry 1, 2 and Botany 21, 22, 23. Winter quarter. Four credits.

Lec. M. W. F. 9:00; Room 201 Plant Ind.; Lab. T. 2:00 to 5:00. Room 204 Plant Ind.

Tingey and Frischknecht

2. ROOT CROPS. Sugar-beets, potatoes, mangles, turnips, other root crops, and beans; cultural methods, market types, and commercial possibilities are studied in detail. Must be preceded or accompanied by Chemistry 1, 2, and Botany 21, 22, 23. Fall quarter. Four credits.

Lec. M. W. F. 9:00. Room 201 Plant Ind. Lab. T. 2:00 to 5:00. Room 204 Plant Ind.

Tingey and Frischknecht

*On leave of absence.

3. FORAGE AND MISCELLANEOUS CROPS. Alfalfa, clovers, grasses and other crops; methods of handling hay; meadow, and pasture management and soiling crops are discussed. Must be preceded or accompanied by Chemistry 1, 2, and Botany 21, 22, 23. Spring quarter. Four credits.

Lec. M. W. F. 9:00. Room 201 Plant Ind. Lab. T. 2:00 to 5:00. Room 204 Plant Ind.

Tingey and Frischknecht

SENIOR COLLEGE COURSES

101. GENERAL CROPS. Essentials in the production of principal field crops; small grains, corn, potatoes, sugar-beets, alfalfa, and pastures. Designed for those students not majoring in Agronomy who wish minimum work in crops. Full credit allowed toward a major in Agronomy. Same material as in course 1, 2 and 3. Prerequisites, Chemistry and Botany 1 or 21. Winter quarter. Five credits.

Lec. M. T. W. F. 9:00. Lab. T. 2:00 to 5:00. Room 204 Plant Ind.

Pittman

104. WEEDS, SEEDS AND GRADING. Common weeds of Utah and methods of eradicating them; the quality and care of seeds; market classes and grades of grain, seeds, hay and potatoes. Prerequisites, Botany, Agronomy 1 and 2 or 3; some horticulture preferred. Fall quarter. Two credits.

Lec. Th. 11:00. Lab. W. 2:00 to 5:00, and any other two-hour period. Room 204 Plant Ind.

Tingey and Frischknecht

105. SEED ANALYSIS AND TESTING. Impurities of farm and garden seeds; methods of analysis and testing; the inspection and marketing of seeds. Prerequisites, Botany 21, 22, 23; Agronomy 1 and 3 or 104. Not given except on application of two or more

students who have open the same two laboratory periods of three hours each. Any quarter. Two to four credits. Two to four laboratory periods a week.

Time to be arranged.

106. Soils. Review of the entire field of soil study; designed as a foundation course for all students of agriculture. Prerequisites, Chemistry 1, 2 (high school chemistry not adequate.) Fall quarter. Four credits.

Lec. M. W. F. 10:00. Room 201 Plant Ind. Lab. Th. 2:00 to 5:00. Room 210 Plant Ind.

Pittman

108. Management of Arid Soils. The composition, nature and management of soils of arid regions; special attention of water relations, alkali, rotations, and other problems in the management of arid soils. Prerequisites, Agronomy 106 and either Geology 102 or Bacteriology 1, preferably both. Winter quarter. Four credits.

Note: Graduate students may obtain additional credit for extra work.

Lec. M. W. F. 10:00. Room 201 Plant Ind. Lab. 2:00 to 5:00. Room 210 Plant Ind.

Pittman

109. Plant Breeding. Varieties of field crops; their selection and improvement; attention to the methods of plant breeding as practiced in America and Europe. Prerequisites, Agronomy 1 or 101. Zoology 111; and Botany 21, 22, 23. Winter quarter. Four credits.

Note: Graduate students may obtain additional credit for extra work.

Lec. M. W. F. 11:00. Room 201 Plant Ind. Lab. W. 2:00 to 5:00. Room 204 Plant Ind.

Bracken

110. Soil Fertility. Principles of soil fertility; fertilizers and their most productive use; review of experimental work in

America and Europe. Prerequisites, Chemistry 1, 2 and Agronomy 106. Spring quarter. Two credits.

Lec. T. Th. 10:00. Room 201 Plant Ind.

Pittman

111, 112, 113. SEMINAR. Current agronomic literature; agricultural problems; assigned topics. Required of all seniors and graduate students in agronomy; open also to juniors. Fall, Winter and Spring quarters. One or two credits each quarter.

Friday 2:10 to 3:30. Room 203 Plant Ind.

The Department

114. HISTORY OF AGRICULTURE. Development of agriculture, with emphasis on social and scientific phases; the successive steps by which modern agriculture has attained its present status. Winter quarter. Two to five credits.

T. Th. S. 10:00. Room 201 Plant Ind.

Bracken

116. DRY-FARMING. Priniciples of dry-farming from practical and scientific standpoints; a survey of experimental work in the Great Plains and Mountain Regions; an analysis of the possibilities in typical climatic areas and on important soil types. Selecting and organizing a dry-farm unit. Graduate students may obtain additional credit for extra work. Winter quarter. Three lectures. Two to four credits.

T. Th. S. 11:00. Room 201 Plant Ind.

Tingey

117. GEOGRAPHY OF AGRICULTURE. Relation of geography to present agricultural development; where plant and animal products are produced; why only in the present regions; a survey of the United States with respect to possible new agricultural developments; effect of the relative position of the large markets to agriculture, especially in Utah. Winter quarter. Two to five credits. Alternates with course 114.

(Not given 1924-25.)

GRADUATE COURSES

207. COMPARATIVE SOILS. Soils of Utah; their origin, composition and agricultural value; soil provinces of the United States, especially those of the arid regions; the soil survey. Prerequisites, Agronomy 6 and Geology 2. Spring quarter. Two or more credits, in proportion to work done.

Lec. W. 10:00. Room 201 Plant Ind. Lab. Th. 2:00 to 5:00. Room 210 Plant Ind.

Pittman

211*. ADVANCED LABORATORY IN SOILS. Chemical and mechanical analysis or special laboratory work. Three hours or more any quarter. Credit in proportion to work. Hours to be arranged.

Pittman

213*. RESEARCH. Graduate students specializing in agronomy are required to do research in some branch of the subject. Open to approved seniors. Time and credit to be arranged with the instructors.

Pittman and Tingey

215. PLANT PRODUCTION. Recent experimental information on plant production and soil management; analysis of research methods; classification of important varieties of field crops, review of the scientific literature. Prerequisites, at least one course

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*Students who are interested in technical soil study may be assigned to Experiment Station laboratories where they will be under the direction of either Associate Professors Jennings or Thomas. Each of these men has been granted permission to teach one short course in the field. Advanced students are referred to courses 219 and 220.

in botany, agronomy, and either bacteriology or geology. Open to approved senior college students. Spring quarter. Two to four credits.

T. Th. 11:00. Room 201 Plant Ind.

Pittman

218. Special Soil Problems. Students desiring to make a special study of any particular soil problem will make a complete study of available literature on this problem under the supervision of the instructor and write a thesis. Credit in proportion to work. Prerequisite, Agronomy 106 and either General Bacteriology or General Geology. Any quarter.

Pittman

219. Physical Chemistry of the Soil. This course and the one following are designed to develop the science of edaphology and are intended primarily for students expecting to specialize in soils. The theoretical aspects of soils will be treated with particular reference to the physical and chemical nature of the mineral and organic particles, and their relation to the phenomena of water-holding power, supply of plant nutrients, soil alkali, and soil structure. The colloidal theory of soils will be emphasized.

Prerequisites, General and Organic Chemistry. Seniors admitted on approval. Winter quarter. Two credits.

Lec. T. Th. 8:00. 201 Plant Ind.

T Lomas

220. Dynamic Soil Processes. The soil will be treated as a natural body developed through the operation of a definite moisture-temperature history. The soil profile, soil horizons, soil morphology and soil colloids will be considered as indices to the age and properties of the soil. The zonal distribution of soils will be emphasized. Spring quarter. Two credits. Seniors admitted on approval.

Lec. T. Th. 8:00. Room 201 Plant Ind.

Jennings

ANIMAL HUSBANDRY

W. E. CARROLL, *Professor.*
GEORGE B. CAINE, *Professor.*

JUNIOR COLLEGE COURSES

1. MARKET TYPES. The judging of market types of horses, cattle, sheep and swine. Some score card practice is given, but most if the work is comparative judging of groups of animals. Five credits.

Sec. 1. Winter quarter, Lec. M. W. F. 10:00. Lab. W. F. 2:00 to 5:00. Room 208 Livestock.

Caine

Sec. 2. Spring quarter, Lec. M. W. F. 11:00. Lab. W. F. 2:00 to 5:00. Room 208 Livestock.

Caine

2. BREED TYPES. The origin, history and characteristics of the different breeds of horses, cattle, sheep and swine, especial stress being laid upon their adaptability to western conditions. Fall quarter. Five credits.

Daily except Th. 10:00. Room 208 Livestock.

Caine

6. BEEF CATTLE PRODUCTION. The practical methods of beef production, including a consideration of range practice, feeding for market, fitting for show and general care and management. Winter quarter. Three credits.

(Not given in 1924-25.)

Caine

7. HORSE HUSBANDRY. Market types, handling of breeding and growing horses, fitting for show and sale and practical methods of handling and training horses. Winter quarter. Three credits.

T. Th. S. 9:00.

Caine

8. SWINE MANAGEMENT. The management of the breeding herd, fattening for market and fitting for show. Spring quarter. Three credits.

(Not given 1924-25.) *Caine*

9. SHEEP HUSBANDRY. General care on range and farm, fattening for market, fitting for show and work in grading and sorting wool. Fall quarter. Three credits.

T. Th. S. 9:00. *Caine*

SENIOR COLLEGE COURSES

101. LIVESTOCK MANAGEMENT. Practice in care and management of livestock and fitting for show and sale. Open only to a limited number of advanced students in Animal Husbandry. Laboratory work at barns. Fall or Spring quarter. Credit and hours to be arranged.

Carroll and Caine

102. PRACTICE FEEDING. (Open only to students not majoring in Animal Husbandry.) How the animal uses its feed; classes of feeds, compounding rations for different purposes and for different classes of animals. Prerequisites, Agronomy 1 and 3 or 101. Fall quarter. Five credits.

Daily, except Saturday 8:00. Room 207 Livestock.

Caine

103. ANIMAL NUTRITION. The anatomy and physiology of the digestive system; the purpose of nutrition; the theory and practice of feeding, with special reference to Utah conditions. Prerequisites, Organic Chemistry or Physiology 1 and Agronomy 101. Winter and Spring quarters. Five credits each quarter. Daily except S. 8:00. Room 207 Livestock.

Carroll

104. LABORATORY COURSE. Laboratory work including the actual feeding of different classes of livestock for different purposes can be arranged for a limited number of students.

Time and credit to be arranged.

105. PRINCIPLES OF BREEDING AND HERD BOOK STUDY. An application of the principles of breeding to practical breeding operations; the place of animal breeding on the farm; methods of selection; aids to selection; grading; cross breeding; line breeding; inbreeding; herd books, pedigrees of noted individuals of the important breeds. Prerequisite, Zoology 111 (Genetics.) Spring quarter. Five credits.

Daily except S. 9:00. Room 207 Livestock.

Carroll

106. ADVANCED STOCK JUDGING. The judging of groups of animals of all classes. Attendance at the State Fair and at all accessible county fairs is required. Prerequisites, Animal Husbandry 1 and 2.

Fall quarter. Three credits. Lab. M. T. Th. 2:00 to 5:00. Barns.

Carroll and Caine

120. RESEARCH. Advanced students may elect research work in any phase of animal husbandry.

Time and credit to be arranged with the department.

125. SEMINAR. Round table discussions of current literature and special phases of animal husbandry and dairying by advanced students and instructors of the department. Fall, Winter and Spring quarters. One credit each quarter.

M. 2:00. Room 207 Livestock.

Carroll, Caine and Wilster

POULTRY HUSBANDRY

BYRON ALDER, *Assistant Professor.*
W. H. WARNER, *Assistant.*

JUNIOR COLLEGE COURSES

1. GENERAL POULTRY. A study of breeds, judging, breeding, incubation, brooding, housing, feeding and marketing. Winter or Spring quarter. Four credits.

Lec. M. W. F. 11:00. Lab. M. 2:00 to 5:00. Room 205 Livestock.

Alder

2. General Poultry. Same as poultry 1 except that no laboratory work is given. Winter or Spring quarter. Three credits.

M. W. F. 11:00. Room 205 Livestock.

Alder

3. General Poultry. This course is planned to meet the needs of Home Economic students. Not given unless ten students apply. Spring quarter. Two credits.

T. Th. 10:00. Room 205 Livestock.

Warner

4. Incubation and Brooding. Practical and experimental work; the factors which influence the hatching quality of eggs and the raising of chicks. Prerequisites, Poultry 1. Spring quarter. Two credits.

M. W. 9:00. Room 205 Livestock.

Alder

5. Poultry Management. The housing, care, feeding and management of different breeds under western conditions. Prerequisite, Poultry 1. Winter quarter. Two credits.

T. S. 11:00. Room 205 Livestock. *Alder*

6. Breeds and Breeding. The origin and development of the breeds and varieties of poultry; practice in judging; a review of the literature on breeding for utility and exhibition. Prerequisite, Poultry 1. Winter quarter. Three credits.

(Not given 1924-25.)

Alder

7. Poultry Feeds and Feeding. Study of nutrition problems; the feeds and methods of feeding. Prerequisite, Poultry 1 or 2. Winter quarter. Three credits.

M. W. F. 10:00. Room 205 Livestock. *Warner*

8. Turkeys, Ducks and Geese. A study of the breeds,

breeding, feeding, marketing, etc. Winter quarter. Two credits.
T. S. 10:00. Room 205 Livestock.

Warner

SENIOR COLLEGE COURSES

125. RESEARCH. Research work in special problems. Prerequisites, Poultry 5 and 4.
Time and credit to be arranged.

Alder

126. SEMINAR. Current poultry literature studied; assigned problems and special topics. Fall or Winter quarter. One credit.
Time to be arranged.

Alder and Warner

127. POULTRY PRACTICE. Special practice at the poultry yards.
Time and credit to be arranged.

Alder and Warner

ART

CALVIN FLETCHER, *Professor.*
H. R. REYNOLDS, *Instructor.*

JUNIOR COLLEGE COURSES

1. NATURE APPRECIATION. Study of beauty in natural form with a view to its use in design. Fall quarter. Room 330 M. Two credits.
Sec. 1. M. W. F. 10:00.

Reynolds

Sec. 2. M. W. F. 11:00.

Reynolds

2. DESIGN. General principle of design in pattern and color, color theory, etc. Winter quarter. Room 330 M. Two credits.
Sec. 1. M. W. F. at 10:00. *Reynolds*
Sec. 2. M. W. F. 11:00. *Reynolds*

3. ART APPRECIATION. Art principles as applied to costume, interior decoration, painting, sculpture and architecture will be discussed. Spring quarter. Room 330 M. Two credits.

Sec. 1. M. W. F. 10:00.

Reynolds

Sec. 2. M. W. F. 11:00.

Reynolds

Art 1, 2, 3 required of students in Home Economics.

31. ART IN COMMERCE. Lettering involving basic and commercial types, spacing as manifest in commercial forms and advertising, drafts, business letters, etc. Also color study will be taken up. Fall quarter. Three credits.

T. Th. S. 8:00.

Fletcher

32. ART IN DISPLAY. Study of fundamental patterns for drapery, backgrounds, etc., window displays, posters and cards. Their value and selection, festal decoration, etc. Winter quarter. Three credits.

T. Th. S. 8:00. Room 355 Main.

Fletcher

33. COMMERCIAL ART APPRECIATION. Appreciation of personal appearance, environment, pictures, sculpture and architecture. Spring quarter. Three credits.

T. Th. S. 8:00. Room 355 Main.

Fletcher

For art education see Department of Education.

SENIOR COLLEGE COURSES

114. HISTORY OF ART. History of painting, sculpture, and architecture. Stereopticon used. Three credits. Fall quarter.

T. Th. S. 11:00. Room 355.

Reynolds

107. Aesthetics. The essentials common to all the arts. The basis of sound judgment and appreciation of poetry, painting, music, sculpture, and architecture. Five credits.

(Not given in 1924-25.)

122. Home Planning, Construction and Design. The principles of home design, garden design, house construction, heating, sanitary equipment etc., together with painting, color, and wood fininshing will comprise the course. Fall quarter. Room 355 for lecture.

Lec. T. Th. S. 9:00.

Fletcher

23. Interior Decoration. Decoration and furnishing of interiors including furniture, walls, tableware, pottery, pictures, flowers and the practical assembling of all features which go to make the home beautiful. Winter quarter. Room 355 for lecture. Three credits.

Lec. T. Th. S. at 9:00.

Fletcher

124. Perspective Theory. The principles of cylindrical, parallel and oblique perspective as used in drawing will be covered. Spring quarter.

T. Th. S. 9:00.

Fletcher

STUDIO COURSES

This work is conducted as individual laboratory work. Three hours work each week required for each credit granted. Two, three or more credits may be taken each quarter but not more than the maximum credit indicated will be granted. Students must file their studio hour schedule with the professor in charge of the course during the first week of their attendance.

All studio courses may be taken up any quarter and are given in the Art Studios on 3rd floor, Main Building.

JUNIOR COLLEGE COURSES

4. DRAWING. Free hand drawing from still life, cast, and nature. Maximum 15 credits. Room 330 any day except Thursday and Saturday. M. T. W. F. 2:00 to 5:00.

Fletcher

5. ELEMENTARY PAINTING. In water color, oil, or pastel. Maximum 15 credits. Room 330 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

6. ELEMENTARY MODELING. From antique and nature. Maximum 15 credits. Room 328.

M. T. W. F. 2:00 to 5:00.

Fletcher

7. ILLUSTRATION. Elementary illustration and processes for newspaper, books and magazines. Maximum 12 credits. Room 355 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

8. EMBROIDERY DESIGN. Design for embroidery, lace weaving, etc. Maximum 6 credits.

M. T. W. F. 2:00 to 5:00.

Reynolds

9. HISTORIC ORNAMENT. Egyptian, Assyrian, Greek, French and Rennaissance may be studied. Maximum 9 credits. Room 330 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

10. SHOW CARD AND ELEMENTARY SIGN LETTERING. Maximum 12 credits. Room 330 D.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Fletcher

11. POTTERY. Elementary, including, building, turning, glazing, firing etc., such as may be done with a limited equipment. Maximum 2 credits. Room 328.

M. T. W. F.

Reynolds

12. CHINA PAINTING. Elementary painting processes. Prerequisites Art 1, 2, 3, or equivalent. Maximum 6 credits.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Fletcher

13. COPPER WORK. Simple exercises in sawing, raising, and repousse. Maximum 6 credits. Room 332.

M. T. W. F. 2:00 to 5:00.

T. Th. 10:00 to 1:00.

Reynolds

14. LEATHER WORK. Elmentary etching, dying, cutting, and tooling in leather mats, purses, bags, etc. Maximum 4 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

15. BASKETRY. Weaving processes in reed, raffia and grass. Maximum 9 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

16. ENAMELING. Work on glass, wood, ivory etc. Maximum 6 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

17. FABRIC DECORATION. Elementary stencilling, blockprinting, and Batik. Maximum 9 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

SENIOR COLLEGE COURSES

106. ADVANCED DRAWING. Life drawing from draped figure, animal drawing, and advanced antique. Maximum 15 credits. Room 330 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

108. ADVANCED PAINTING. Oil, water color, or pastel may be used. Maximum 30 credits.

M. T. W. F. 2:00 to 5:00.

Fletcher

109. ADVANCED MODELLING. From animals or living models. Room 328.

M. T. W. F. 2:00 to 5:00.

Fletcher

110. ADVANCED ILLUSTRATION. Newspaper, magazine, costume and decorative illustration, illumination poster work or cartooning may pe pursued. Maximum 15 credits. Students will pursue one line at a time. Room 330 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

111. PROFESSIONAL DESIGN. Design for textiles, wall paper, interior decoration, furniture, etc. One line to be taken at a time. Maximum 12 credits. Room 330 E.

M. T. W. F. 2:00 to 5:00.

Fletcher

112. ADVANCED COSTUME DESIGN. Prerequisites, Textiles 105 and 111. Maximum 6 credits. Room 330 F.

M. T. W. F. 2:00 to 5:00.

Fletcher

113. ADVANCED SHOW CARD AND TECHNICAL SIGN WORK. Maximum 12 credits. Room 330 D.

M. T. W. F.

114. FANCY LETTERING AND ILLUMINATION. Pen lettering and decoration for memorials, documents, Christmas greetings, place cards etc. Maximum 12 credits.

M. T. W. F. 2:00 to 5:00. Room 330 F.

Reynolds

115. ADVANCED CHINA DECORATION. Incrusted work, enamelling, lustre, and paste, to be taken up. Maximum 15 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Fletcher

116. ADVANCED ART METALRY. Maximum 18 credits. Room 332.

M. T. W. F. 2:00 to 5:00.

Reynolds

117. JEWELRY. Sawing, wire work, filligree, stone setting, enamelling, soldering, etc. will be taken up with broaches, rings, lavaliers, pins, chains, etc. Maximum 18 credits. Room 332.

M. T. W. F. 2:00 to 5:00.

Reynolds

118. ADVANCED LEATHER WORK. Tooling, carving, mounting and finishing. Maximum 12 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

119. ADVANCED WOOD ORNAMENTATION. Carving, inlay, scraffito, jesso, etc. Maximum 18 credits. Room 332.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

120. ADVANCED FABRIC DECORATION. Advanced work in Batik, dying, stencilling and blockprinting. Maximum 15 credits. Room 330 A.

M. T. W. F. 2:00 to 5:00. T. Th. 10:00 to 1:00.

Reynolds

GRADUATE COURSES

206. ADVANCED DRAWING FROM ANIMALS, life and close anatomical analysis. Room 330 E.
M. T. W. F. 2:00 to 5:00.

Fletcher

208. ADVANCED PAINTING. Landscape or portrait may be pursued.
M. T. W. F. 2:00 to 5:00. Room 330 E.

Fletcher

209. ADVANCED MODELLING. Original projects in sculpture to be carried out.
M. T. W. F. 2:00 to 5:00. Room 328.

Fletcher

211. PROFESSIONAL DESIGN. Interior Decoration, or commercial design may be taken up. Room 330 F.
M. T. W. F. 2:00 to 5:00.

Fletcher

BACTERIOLOGY AND PHYSIOLOGICAL CHEMISTRY

J. E. GREAVES, *Professor*
*EZRA G. CARTER, *Assistant Professor*

JUNIOR COLLEGE COURSES

1. GENERAL BACTERIOLOGY. Biology and significance of bacteria, and the relationship of bacteria to the arts, industries, and disease are considered. Where possible this should be accompanied by Bacteriology 2.
Sec. 1. Fall quarter. Three credits.
M. W. F. 10:00. Third Floor, Widtsoe Hall.

Greaves

Sec. 2. Winter quarter. Three credits.
T. Th. S. 9:00. Third Floor, Widtsoe Hall.

Greaves

2. GENERAL BACTERIOLOGY. Laboratory work which should accompany Bacteriology 1. Breakage deposit, $2.50.

Sec. 1. Fall Quarter. Two credits.

W. F. 2:00 to 5:00. Third Floor, Widtsoe Hall.

Sec. 2. Winter quarter. Two credits.

W. F. 2:00 to 5:00. Third Floor, Widtsoe Hall.

3. PATHOGENIC BACTERIOLOGY. The pathogenic bacteria are considered in relation to specific diseases, especially with regard to immunity. Prerequisite, Bacteriology 1. Breakage deposit, $2.50. Winter quarter. Five credits.

Lec. M. W. F. 9:00. Lab. W. F. 2:00 to 5:00.

Third Floor, Widtsoe Hall. *Greaves*

14. HEALTH EDUCATION. The health problems confronting the teachers in rural and urban schools. Prerequisite, Bacteriology 1. Fall and Winter quarters. Three credits.

T. Th. S. 10:00. Third Floor, Widtsoe Hall. *Greaves*

SENIOR COLLEGE COURSES

102. SOIL BACTERIOLOGY. Bacteria considered in relation to soil fertility. Prerequisite, Bacteriology 1. Fall quarter. Three credits.

M. W. F. 8:00. Third Floor, Widtsoe Hall. *Greaves*

103. SOIL BACTERIOLOGY. Methods used in bacteriological investigations. Should accompany Bacteriology 102. Prerequisites, Bacteriology 1 and Chemistry 102. Breakage deposit, $2.50. Fall quarter. Three credits.

T. Th. 2:00 to 5:00. Third Floor, Widtsoe Hall. *Greaves*

104. DAIRY BACTERIOLOGY (Lecture.) The bacteria of milk, butter, and cheese. Prerequisite, Bacteriology 1. Spring quarter. Two credits.

T. Th. 8:00. Third Floor, Widtsoe Hall.

105. DAIRY BACTERIOLOGY (Laboratory). Methods used in the bacteriological examination of milk and dairy products. Should accompany Bacteriology 104. Prerequisite, Bacteriology 1. Breakage deposit, $2.50. Spring quarter. Two credits.

T. Th. 2:00 to 5:00. Third Floor, Widtsoe Hall.

106. SANITARY ANALYSIS. Methods used by the sanitary inspector in examining water, milk and other foods. Prerequisites, Chemistry 6 and Bacteriology 1 or 2.

Time and credit to be arranged.

Greaves

108, 109. PUBLIC HEALTH AND HYGIENE. The nature of disease, its spread and means of prevention are stressed. Prerequisite, Bacteriology 1. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Third Floor, Widtsoe Hall.

Greaves

110. SANITARY STATISTICS. Vital statistics showing effect of sanitary precautions upon health in cities and rural communities. Prerequisites, Bacteriology 1 and 108. Fall quarter. Two credits.

(Not given 1924-25.)

111. PHYSIOLOGICAL CHEMISTRY. The transformation going on in the plant and animal. Prerequisites, Chemistry 21 and 22. Spring quarter. Daily except Saturday, 9:00. Five credits.

Third Floor, Widtsoe Hall.

Greaves

112. PHYSIOLOGICAL CHEMISTRY. A laboratory course which may accompany Bacteriology 111. Breakage deposit, $2.50. Spring quarter. Two credits.

W. F. 2:00 to 5:00. Third Floor, Widtsoe Hall.

116. ADVANCED BIOCHEMISTRY. Bacteriological and chemical methods used in the diagnosing of disease. Time and credit to be arranged.

Third Floor, Widtsoe Hall. *Greaves*

GRADUATE COURSES

207. RESEARCH. The laboratory and library facilities are especially arranged for advanced students in bacteriological investigation in agriculture, household science, the industries, sanitary science, and veterinary science.

Time and credit to be arranged. Third Floor, Widtsoe Hall. *Greaves*

208, 209, 210. SEMINAR. Fall, Winter and Spring quarters. Two credits each quarter.

Time to be arranged. Third Floor, Widtsoe Hall. *Greaves*

BOTANY

GEORGE R. HILL, JR., *Professor*
BERT L. RICHARDS, *Professor.*
LOUIS F. NUFFER, *Instructor.*
ALMA WILSON. *Instructor*

Botany 21, 22, 23, 101, 120, 130, 131, 240, 241, 242 or equivalent required of students majoring in Botany.

JUNIOR COLLEGE COURSES

1. GENERAL BOTANY. A brief survey of the field of plant life; the nature and development of plants; plant parts and their function; the food of plants; the relation of plants to human needs; noteworthy wild and cultivated plants. Five credits.

Sec. 1. Fall quarter. Lec. M. W. F. 9:00. Lab. T. Th. 2:00 to 5:00 or W. F. 2:00 to 5:00. Rooms 101-102 Plant Ind. *Richards*

Sec. 2. Spring quarter. Lec. M. W. F. 9:00. Lab. T. Th. 2:00 to 5:00 or W. F. 2:00 to 5:00. Rooms 101-102 Plant Ind.

Richards

Sec. 3. Spring quarter. Lec. T. Th. S. R:00. Labs. as in Sec. 2.

Richards

21. General Agricultural Botany. Plant physiology, anatomy, morphology and classification. Plant physiology in relation to crop production is the basis of this course. Designed especially for students in agriculture. Required for a major or minor in Botany. Fall quarter. Five credits.

Lec. Sec. 1, M. W. F. 8:00. Sec. 2, T. Th. S. 8:00. Lab. M. or W. and Th. or F. Rooms 101-103 Plant Ind.

Hill and Nuffer

22. *A continuation of course 21. Winter quarter. Five credits.

Hill and Nuffer

23. *A continuation of course 22. Spring quarter. Five credits.

*Students may register for Botany 22 and 23 without Botany 21 only by permission.

Hill and Nuffer

SENIOR COLLEGE COURSES

101. Flowering Plants. Our common plants and their systematic relationship; special emphasis given to economic plants. Two lectures and one laboratory period. Prerequisite, Botany 1 to 21. Zoology 1 or 3 preferred. Three credits. Spring quarter.

Lec. T. Sat. 10:00. Lab. T. 2:00 to 5:00. Rooms 101-103 Plant Ind.

Nuffer

102. A continuation of course 101, extending through the summer. A consideration of the general summer flora of particu-

lar families and their destribution. A laboratory course. Prerequisite, Botany 101. Two to five credits according to work done.

105. AGROSTOLOGY. A taxonomic consideration of the grasses and their distribution and importance. Two credits. One lecture and one laboratory period. Prerequisite, Botany 101. Lec. T. 11:00. Lab. T. 2:00 to 5:00. Fall quarter.

(Not given 1924-25.) *Nuffer*

111. MORPHOLOGY. Life history and classification of plants representative of the four big groups. The course embraces a general survey of the representative reproductive structures and processes in plants, from the bacteria to the higher seed plants. It aims to give a broad view of the trend of evolution as well as of appreciation of the natural relation of the living plant forms. Spring quarter. Three lectures and two laboratory periods. Five credits. Time to be arranged.

(Not given in 1924-25.)

Hill

116. MATERIALS AND METHODS OF BOTANICAL TECHNIC. Collections and preservation of bontanical specimens. Preparation of botanical materials and slides for class room study and exhibition purposes. Designed particularly for teachers of Botany. Prerequisite, Botany 1 or 21. A laboratory course, Any quarter. Two to five credits. Room 110 Plant Ind.

Richards

118. ENGINEERING BOTANY AND DENDROLOGY. Principles of botany necessary for an understanding of woods; structures and properties of wood; economic woods; their identification and uses. Three lectures and two laboratory periods. Winter quarter. Five credits.

Lec. T. Th. S. 9:00. Lab. T. Th. 2:00 to 5:00. Rooms 101-102 Plant Ind.

(Not given 1924-25.)

Wilson

120. PLANT PHYSIOLOGY. An advanced course dealing with the water relations of plants; absorption, metabolism and growth and factors affecting each. Prerequisites, Botany 21, 22, and 23. Three credits. Fall quarter.

(Not given 1924-25.)

Hill

126. ECOLOGY. The distribution and adaptation of plants, as affected by the environmental factors. Fall quarter. Three credits. T. Th. S. 9:00. Room 101 Plant Ind.

Hill

130. PLANT PATHOLOGY. The history, nature, cause and control of field and truck crop diseases. Prerequisites, Botany 1 or 21, 22, 23. Fall quarter, Four credits.

Lect. T. Th. 1:00. Lab. M. Th. 2:00 to 5:00. Rooms 101-102 Plant Ind.

Richards

131. A continuation of course 130. Orchard and small fruit diseases. Winter quarter. Four credits.

Richards

135. MYCOLOGY. Morphology and the taxonomic relations of fungi with special emphasis on economic forms. Prerequisites, Botany 1, or 21, 22, 23. Winter quarter. Four credits. Lec. T. Th. 11:00. Lab. T. Th. 2:00 to 5:00.

(Not given 1924-25.)

Richards

GRADUATE COURSES

221. PATHOLOGICAL TECHNIC. Fundamental principles of photography and micrography as applied to advanced work in biology and plant pathology. Special attention is given the photomicrography and lantern slide production. One lecture and two laboratory periods. Winter quarter. Three credits.

Time to be arranged.

Richards

222. A CONTINUATION OF COURSE 221. Special cultural methods as applied to Plant Pathology and related subjects. Students may register for courses 221 and 222 only by special permission. Two to five credits according to work done. Winter or Spring quarter. Time to be arranged.

Richards

231. PROBLEMS IN PLANT PATHOLOGY. Winter quarter. Two or three credits. Time to be arranged. Room 101 Plant Ind.

Richards

240, 241, 242. SEMINAR. Fall, Winter and Spring quarters. One credit each quarter. Time to be arranged. Room 101 Plant Ind.

Hill and Richards

250. RESEARCH. Open to all qualified Senior College students. Time and credit to be arranged.

Hill and Richards

BUSINESS ADMINISTRATION

W. L. WANLASS, *Professor.*
P. E. PETERSON, *Professor.*
M. H. HARRIS, *Professor.*
W. E. THAIN, *Assistant Professor.*
LEON D. HARDY, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1, 2. PRINCIPLES OF BUSINESS. An introductory course in which the fundamental principles underlying the organization, financing and managing of business activity is made, preparatory to more intensive study in the advanced courses in this department. Fall and Winter quarters. Three credits each quarter.

M. W. F. 10:00. Room 280 Main.

(Not open to Freshmen.)

Wanlass

3. CREDITS AND COLLECTIONS. After a study of the nature and importance of credit in the modern business world, careful attention will be given to the practical work of the credit man and credit department. Consideration will also be given to credit institutions, credit forms, statements, methods of collection and legal remedies. Prerequisites, Economics 1, 2, 3, and Business Administration 1, 2. Spring quarter. Three credits.

M. W. F. 10:00. Room 280 Main.

(Not open to Freshmen.)

Wanlass

SENIOR COLLEGE COURSES

101. APPROACH OF BUSINESS PROBLEMS. This course aims at such a classification of business activities as to provide the student of business with a scientific method of appraoch to the solution of business problems in whatever form they may arise, and to illustrate to application of this method to typical cases. It is intended to serve as a guide to the study of the more specific problems of factory, retail store, and sales management. Fall quarter. Three credits.

T. Th. S. 11:00. Room 302.

Peterson

104. BUSINESS FINANCE. Various types of business organization will be considered and attention given to the methods of providing capital and managing the current finances. This will be done through the use of actual problems. Special consideration given to the financing of small rural enterprises. Prerequisites, Economics 1, 2, 3 or 120, 121, and Business Administration 1, 2. Fall quarter. Three credits.

M. W. F. 10:00. Room 361.

Harris

105-106. MODERN SCIENTIFIC MANAGEMENT. A careful study will be made of the prinicples and the advantages and disad-

vantages of scientific management. Prerequisites, Economics 1, 2, 3 or 120, 121. Three credits.

(Not given 1924-25.)

Peterson

107. LABOR MANAGEMENT. Labor problems studied from the standpoint of the employer. Special consideration given to the principles of executive control, hours of work, working conditions and various methods of attaining greater efficiency. Prerequisites, Economics 1, 2, 3 or 120, 121, and Business Administration 1, 2. Three credits.

(Not given 1924-25.)

Hardy

111. BUSINESS AND AGRICULTURAL STATISTICS. Consideration will be given to the meaning and application of statistics, statistical methods, sources of statistical information and the formulation of business barometers. Prerequisites, Economics 1, 2, 3 or 120, 121 and Business Administration 1, 2. Alternates with Business Administration 113. Three credits.

(Not given 1924-25.)

Wanlass

112. INVESTMENTS. This course takes up a study of the different classes of securities on the market from the standpoint of their desirability as an investment. Analysis of the factors of safety. Determination of the income yield. Type of investment suitable for the different classes of investors. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Room 302.

Thain

113. BUSINESS FORECASTING. The uncertainity which now attends the outcome of business undertakings constitutes the principal defect of the modern business system. In recent years, science has been applied to this field. There is now a great body of material which, if properly understood and used, would be of inestimable value in forecasting business conditions. The

aim of this course will be to acquaint students with principles of business forecasting, the business cycle and the various business barometers. Prerequisites, Economics, 1, 2, 3 or 120, 121, and Business Administration 1, 2. Alternates with Business Administration 111. Fall quarter. Three credits.

M. W. F. 9:00. Main 280.

Wanlass

115. PURCHASING. Much has been written concerning the production and sales activities of business. Why is not business success dependent upon scientific purchasing of the commodities to be sold? With that thought in mind, this course will include a study of the proper organization and management of the purchasing department; the quantity to buy; the time to buy; and the place to buy. A study of store systems will also be taken up. Three credits.

(Not given in 1924-25.)

Thain

120. DOMESTIC AND FOREIGN EXCHANGE. Since the establishment of the Federal Reserve System, great changes have been made in the methods and facilities for financing commercial transactions. The aim of this course will be to give students a working knowledge of the theory and practice of both domestic and foreign exchange. Prerequisites, Economics 1, 2, 3 or 120, 121, and Business Administration 1, 2. Three credits.

(Not given in 1924-25.)

Wanlass

125. RAILROADS. After a general study of the economics of transportation, special attention will be given to railroad traffic and service, determination of rates, management and public regulation. Prerequisites, Economics 1, 2, 3 or 120, 121 and Business Administration 1, 2. Three credits.

(Not given in 1924-25.)

Wanlass

131. INSURANCE AND RISK-BEARING. The hazards of business and the means the business man takes to protect himself against unforeseeable losses. The principles underlying life, fire, accident, credit, and title insurance and bonding are discussed. Prerequisites, Economics 1, 2, 3 or 120, 121. Spring quarter. Three credits.

M. W. F. 8:00. Room 132 Main.

Hardy

GRADUATE COURSE

211. ADVANCED PROBLEMS IN BUSINESS ADMINISTRATION. It will be the aim in this course to apply the principles of economics and business to problems that have actually arisen in the conduct of business. In addition to these cases, each student will select a major problem requiring research work. This work may be used to satisfy the thesis requirement for the master's degree. Open only to seniors and graduates who have had satisfactory preliminary training. Fall, Winter and Spring quarters. Three credits each quarter.

T. 2:00 to 4:00. Room 280 Main.

Wanlass

CHEMISTRY

R. L. HILL, *Professor.*
C. T. HIRST, *Assistant Professor.*
SHERWIN MAESER, *Assistant Professor.*

Students who major in chemistry are required to take Chemistry 103 and twelve hours additional senior college work in Chemistry.

JUNIOR COLLEGE COURSES

1. 2. INORGANIC CHEMISTRY. The properties and preparations of the elements and their ordinary compounds The quantitative laws of chemical combination and their applications. The effects of temperature and concentration in displacing chemical equilibria. Second floor. Widtsoe Hall.

Sec. 1. Fall and Winter quarters. Five credits each quarter.
Lec. T. Th. S. 8:00. Lab. W. F. 2:00 to 5:00

Maeser

Sec 2. Fall and Winter quarters. Five credits each quarter.
Lec. M. W. F. 8:00. Lab. T. Th. 2:00 to 5:00.

Hill

Sec. 3. Winter and Spring quarters. Five credits each quarter.

Lec. M. W. F. 9:00. Lab. M. Th. 2:00 to 5:00.

Maeser

3, 4, 5. INORGANIC CHEMISTRY. A more advanced course in organic chemistry, including a beginning in qualitative analysis. Prerequisites, high school chemistry or physics. Fall, Winter and Spring quarters. Five credits each quarter.

T. Th. S. 9:00. Lab. M. F. 2:00 to 5:00. Second floor, Widtsoe Hall.

Maeser

14, 15. QUALITATIVE ANALYSIS. A course in the theory and practice of inorganic qualitative analysis. Prerequisites, Chemistry 1, 2, or 3, 4, 5. Winter and Spring quarters. Three credits each quarter.

Lec. T. 2:00. Lab. T. 3:00 to 5:00, Th. F. 2:00 to 5:00.

Hirst

21, 22. ORGANIC CHEMISTRY. Fundamental principles of organic chemistry. The chemistry of the carbon compounds. Special attention will be paid to the chemistry of the proteins, carbohydrates, and fats. Prerequisites, Chemistry 1, 2. Fall and Winter quarters. Four credits each quarter.

M. W. F. 1:00. Lab. W. or Th. 2:00 to 5:00. Second floor Widtsoe Hall.

Hill

23. ORGANIC CHEMISTRY. A laboratory course in organic chemistry to accompany 21, 22, designed to furnish extra laboratory work for students majoring in Chemistry and all others

who desire a more complete laboratory course. Fall or Winter quarter. One or two credits each quarter according to registration.

Hours to be arranged.

Hill

SENIOR COLLEGE COURSES

102, 103. QUANTITATIVE ANALYSIS. A course in the theory and application of the fundamental principles of gravimetric and volumetric analysis to inorganc, agricultural and food analysis. Prerequisites, Chemistry 5 or 14 and 15. Winter and Spring quarters. Three credits each quarter.

Lec. Th. 2:00. Lab. Th. 3:00 to 5:00. T. F. 2:00 to 5:00. Second Floor Widtsoe Hall.

Hirst

104. SPECIAL COURSE IN QUANTITATIVE ANALYSIS. Prerequisite, Chemistry 103. Fall, Winter or Spring quarters.

Time and credit to be arranged with instructor.

a. Water analysis. b. Food analysis. c. Soil analysis. d. Urine analysis. e. Gas analysis. Time to be arranged.

Hill and Hirst

105, 106. PHYSICAL CHEMISTRY. See Physics, 105, 106.

107, 108. DAIRY CHEMISTRY. The chemistry of milk and milk products including tests for adulterants, preservatives, and the routine quantitative methods of analysis of dairy products. Prerequisites, Chemistry 22. Fall and Winter quarters. Four credits each quarter. Second Floor, Widtsoe Hall.

Lec. T. Th. 11:00. Lab. W. Th. 2:00 to 5:00.

Hill

109. CHEMISTRY OF TEXTILES. Chemical methods for the identification of textile fibres, including complete quantitative determination of cotton, wool, silk and linen substances in fabrics; chemistry of dyeing and bleaching. Prerequisites, Chemistry 22. Textiles and Clothing 20, 21. Spring quarter. Three credits.

(Not given in 1924-25.) *Hill*

111, 112. ORGANIC CHEMISTRY. A senior college course in organic chemistry paralleling Chemistry 21, 22, but requiring extra reports and outside reading. Fall and Winter quarters.

Lec. M. W. F. 10:00. Lab. W. or Th. 2:00 to 5:00. Second Floor Widtsoe Hall.

Hill

113. GENERAL ORGANIC REACTIONS. The more important reactions employed in synthetic organic chemistry. Prerequisites, Chemistry 22. Spring quarter. Three credits.
Hours to be arranged.

Maeser

114. THE NITROGEN COMPOUNDS. A course devoted primarily to the proteins, alkaloid and purine derivatives. Prerequisites, Chemistry 22. Winter and Spring quarters. Three credits each quarter.

Hours to be arranged.

Hirst

115. ORGANIC PREPARATIONS. An advanced laboratory course in practical laboratory methods of synthetic organic chemistry. Prerequisites, Chemistry 22, and 103. Fall or Winter quarter. Three credits.

Hours to be arranged.

Maeser

180. RESEARCH. Senior or graduate students majoring in chemistry may elect research in any branch of the subject.

Time and credit to be arranged with the instructor.

Hill, Hirst and Maeser.

For additional senior college courses which may be used toward a major in Chemistry see:

Physical Chemistry. (Physics 105, 106.)

Physiological Chemistry. (Bacteriology 111.)

DAIRY HUSBANDRY

GEORGE B. CAINE, *Professor.*
GUSTAV WILSTER, *Professor.*

Students majoring in dairy manufacturing must complete the following courses before graduation: Dairy Husbandry 2, 4, 101, 103, 104, 105, 110, 111; Chemistry 107, 108 Dairy Chemistry; Bacteriology 104, 105 Dairy Bacteriology; Accounting 51, Dairy Manufacturing Accounts; Marketing 102, Advertising. In addition students must have had at least six months of practical work under the direction of the dairy department in an accredited dairy manufacturing establishment before graduation. No credit is given for this work.

JUNIOR COLLEGE COURSES

1. ELEMENTS OF DAIRYING. The secretion and composition of milk; the chemical and physical properties of milk; testing milk and cream for fat and adulterants; dairy sanitation; separation; pasteurization; making of butter, cheese and ice cream; food value of milk and milk products. Course completed in one quarter. Students should provide themselves with white aprons or white suits. Four credits. Fall or Winter quarter. Room 208 Livestock

Fall quarter, Lec. M. W. F. 8:00. Lab. T. 8:00 to 11:00.
Winter quarter, Lec. M. W. F. 9:00. Lab. T. 2:00 to 5:00.

Wilster

2. MARKET MILK. The production of sanitary milk; handling of milk at a city milk plant; inspection methods; marketing of milk. Winter quarter. Three credits.

Lec. T. Th. 9:00. Lab. M. 2:00 to 5:00. Room 208 Livestock.

Wilster

3. Dairy Technology. The manufacture of dried and condensed milk, milk sugar, casein, fermented milk, oleomargarine, renovated butter, preparation of various milk drinks. Spring quarter. Two credits. (Not given in 1924-25.)

Wilster.

4. Ice Cream and Ices. The manufacture of standard kinds of ice creams and ices. Prerequisite, Dairy Husbandry 1. Spring quarter. Three credits.

Lec. T. Th. 9:00. Lab. T. 2:00 to 5:00. Room 208 Livestock.

Wilster

5. Dairy Engineering. A study of the machines used in the various dairy plants, such as boilers, engines, motors, refrigerating machines, separators, pasteurizers, freezers and churns. Fall quarter. Three credits.

M. W. F. 10:00. Room 208 Livestock.

Wilster

6. Dairy Arithmetic. Problems in testing and standardizing, figuring overrun, figuring cost of manufacturing and marketing of dairy products. Fall quarter. One credit.

Friday 11:00. Room 208 Livestock.

Wilster

7. Varieties of Cheese. The manufacture of standard kinds of soft cheese and some foreign and domestic varieties such as Edam, Brick, Limburger. Fall quarter. Two credits.

Lec. Th. 9:00. Lab. M. 2:00 to 5:00. Room 208 Livestock.

Wilster

8. Creamery Practice. Any quarter. Time and credit to be arranged. Dairy Laboratory.

Wilster

12. Breeds of Dairy Cattle. Study of the history, development and type of all breeds of dairy cattle. Requirements for

official records. Pedigree and Herd Book study. Winter quarter. Three credits.

M. W. F. 9:00. Room 208 Livestock.

Caine

SENIOR COLLEGE COURSES

101. TESTING AND INSPECTION. Commercial testing of dairy products. Methods of inspection. Prerequisite, Dairy Husbandry 1. Spring quarter. Two credits. Room 208 Livestock.

Lec. T. 11:00. Lab. W. 2:00 to 5:00.

Wilster

102. JUDGING DAIRY PRODUCTS. Judging milk, butter, cheese, and ice cream. Winter quarter. One credit.

T. 11:00. Dairy Laboratory.

Wilster

103. BUTTERMAKING. The manufacture of creamery butter. Designed to meet the needs of the creameryman. Prerequisite or parallel, Dairy Husbandry 1. Winter quarter. Five credits. Room 208 Livestock.

Lec. M. W. F. 8:00. Lab. F. 2:00 to 5:00 and S. 8:00 to 11:00.

Wilster

104. CHEDDAR CHEESE MAKING. Manufacturing and curing of American Cheddar Cheese. Prerequisites or parallel, Dairy Husbandry 1. Fall quarter. Four credits. Room 208 Livestock.

Lec. M. W. 11:00. Lab. T. 11:00 to 5:00.

Wilster

105. MANAGEMENT OF DAIRY PLANTS. Organization and construction of dairy plants; efficient methods in the manufacture of dairy products; marketing; profit obtained; advertising; accounting. Each student will keep the Dairy Department books for one month. Prerequisite, Dairy Husbandry 1. Spring quarter. Five credits.

Lec. M. W. F. S. 8:00. Room 208 Livestock. One three-hour lab. Time to be arranged.

Wilster

110. DAIRY PRODUCTION. A brief review of dairy breeds, ways of starting dairy herds, systems of herd records, calf feeding and management, dairy herd feeding, housing and management. Laboratory exercises in judging, fitting for show, official testing, calf feeding, etc. Spring quarter. Five credits. Time to be arranged.

Daily, except Saturday 10:00. Room 208 Livestock.

Caine

111. DAIRY CATTLE JUDGING. A study of the types of the various herds of dairy cattle. Visit to important herds. Valuation of dairy cattle. Prerequisites Animal Husbandry 1 and 2. Dairy Husbandry 12. Spring quarter. One credit. Room 208 Livestock.

Friday 2:00 to 5:00.

Caine

115. DAIRY SEMINAR. Discussions and reports of current literature. Time and credit to be arranged.

Caine and Wilster

GRADUATE COURSE

216. RESEARCH. Special problems in connection with dairy production and the manufacture of butter, cheese, and ice cream. Open to advanced undergraduates. Any quarter. Time and credit to be arranged.

Caine and Wilster

ECONOMICS

M. H. HARRIS, *Professor.*
W. L. WANLASS, *Professor.*
LEON D. HARDY, *Assistant Professor.*
VON T. ELLSWORTH, *Instructor.*

JUNIOR COLLEGE COURSES

1, 2, 3. GENERAL ECONOMICS. After a brief survey of man's economic development, a careful study is made of those fundamental laws and principles that govern our modern economic life. Some attention is also given to present economic problems preparatory to a more intensive study in the advanced courses in this department. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1, M. W. F. 8:00. Room 280 Main.

Wanlass

Sec. 2. M. W. F. 11:00. Room 361 Main.

Harris

Sec. 3. T. Th. S. 8:00. Room..... Main.

Ellsworth.

Sec. 4. T. Th. S. 9:00. Room..... Main.

Ellsworth.

10. CURRENT ECONOMICS AND POLITICAL PROBLEMS. One great handicap of most college students is that they have never learned to read the newspapers and periodicals intelligently and critically. Many do not read them at all. The consequent inability to correlate college work with the world of affairs greatly diminishes the value of a college education. The aim of this course will be to assist students to read intelligently. Extensive reading of current newspapers and magazines will constitute the basis for class discussion. Winter quarter. Three credits.

M. W. F. 9:00. Room 380 Main.

Wanlass

30, 31. ECONOMIC DEVELOPMENT OF THE UNITED STATES. This course indicates the dominance of economic forces in history. A critical study will be made of the evolution and progress of American agriculture, industry, commerce, transportation, banking, labor organizations, etc., from the colonial to the present time. Graphs and charts will be made and special reports will be given. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Room 361 Main.

Harris

SENIOR COLLEGE COURSES

110. COMMERCE AND COMMERCIAL POLICIES. Attention given to the fundamentals of trade and commerce, to the methods of increasing, limiting and directing American trade and an analysis of sound commercial policies. Prerequisites, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 8:00. Room 361 Main.

Harris

120, 121. GENERAL ECONOMICS. A comprehensive study of the fundamentals of economic theory. Prerequisite, High School Economics or Senior College standing. Spring quarter.

M. W. F. 8:00. 361 Main.

Harris.

125. LABOR PROBLEMS. Study of the labor situation from the social point of view. Special attention given to labor problems and methods of securing industrial peace. Prerequisites, Economics 1, 2, 3 or 120, 121. Fall quarter. Three credits.

M W. F. 8:00. Room..... Main.

Hardy

150. PRINCIPLES OF TAXATION. After a brief survey of the fundamental economic principles of public finance, a critical examination of our federal, state and local tax systems will be made. The tariff, the general property tax, the income tax and

the various business taxes will be studied. Special attention will be given to tax problems in Utah. Prerequisites, Economics 1, 2, 3 or 120, 121. Spring quarter. Three credits.

M. W. F. 9:00. 280 Main.

Wanlass

160. MONEY AND CREDIT. The nature, development and uses of money and credit. Special attention given to bi-metalism, the gold standard, the money market and the relation of money and credit to prices. Prerequisites, Economics 1, 2, 3 or 120, 121. Spring quarter. Three credits.

M. W. F. 10:00. 361 Main.

Harris

167. BANKING. After a brief survey of the development of banking, in foreign countries and in the United States, our present banking organization and practices will be critically studied. Special attention given to the Federal Reserve System. Prerequisites, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 10:00. Room 280 Main.

Harris

168. BANKING PRACTICE. A technical course treating of the internal problems of bank organization. The emphasis is placed not upon the routine of bank operation, but upon the larger problems of management, not upon clerical work, but upon work of official responsibility. Banking technic will be studied from the standpoint of functions, rather than from that of bank departments. Prerequisite, Economics 67. Spring quarter. Three credits.

(Not given in 1924-25.)

Harris

180, 181, 182. CURRENT ECONOMIC PROBLEMS. (Economic Seminar.) A reading and research course designed for junior, senior and graduate students who are majoring in economics

and related subjects. Special reports on current economic problems and literature will be made. Required of students graduating in economics. Fall, Winter and Spring quarters. One credit each quarter. Two years credit allowed.

Alternating Wednesday evenings, 7:15.

The Department

190. RESEARCH IN ECONOMICS. Special investigations in problems of economies may be carried on by senior and graduate students. Credit will be granted according to work done.

Time to be arrang.ed.

Harris

195. HISTORY OF ECONOMIC THOUGHT. A critical study of the origin and development of the economic theories of the leading thinkers in the leading nations of the world. Spring quarter. Three credits.

T. Th. S. 9:00. Room 180 Main.

Wanlass

For courses in other departments closely associated with these see:

Agricultural Economics 105. (Rural Credits.)
Agricultural Economics 101. (Rural Economics.)
Agricultural Economics 206. (Land Economy.)

See also Departments of Marketing and Business Administration.

EDUCATION AND PSYCHOLOGY

HENRY PETERSON, *Professor.*
J. E. GREAVES, *Professor.*
GEORGE R. HILL, JR., *Professor.*
CALVIN FLETCHER, *Professor.*
ALICE KEWLEY, *Professor.*
V. C. COULTER, *Professor.*
C. R. JOHNSON, *Professor.*
KATHERINE COOPER, *Associate Professor.*

J. R. JENSON, *Assistant Professor.*
HENRY OBERHANSLEY, *Assistant Professor.*
EDITH BOWEN, *Assistant Professor.*
C. E. MCCLELLAN, *Instructor.*

JUNIOR COLLEGE COURSES

1. INTRODUCTORY PSYCHOLOGY. An elementary study of mental processes to enable students the better to direct their educational careers in college and to grasp in a general way the pyschology of business, trade and profession. Course repeats Fall, Winter or Spring quarter. Three credits. Room 177 Main.

Sec. 1. Fall quarter, M. W. F. 8:00.
Sec. 2. Fall quarter, T. Th. S. 8:00.
Sec. 3. Winter quarter, M. W. F. 8:00.
Sec. 4. Spring quarter, M. W. F. 8:00.
Sec. 5. Spring quarter, M. W. F. 8:00.

Peterson and McClellan

2. EDUCATIONAL PSYCHOLOGY. Designed especially for Sophomores who are preparing to teach in the elementary schools. This course applies the principles of psychology to the teaching process and to other aspects of social leadership. Prerequisite, Education 1. Winter or Spring quarter. Three credits.

Sec. 1. Winter quarter, M. W. F. 8:00. Room 177 Main.
Sec. 2. Winter quarter, T. Th. S. 8:00. Room 358 Main.
Sec. 3. Spring quarter, T. Th. S. 8:00. Room.....

Peterson and McClellan

11. PHYSICAL DEVELOPMENT. How to keep physically fit. The close correlation between mental fitness and physical fitness. A lecture course. Spring quarter. Three credits.

T. Th. S. 8:00.

Jenson

21. SCOUTMASTERSHIP. A course in the organization, management and leadership of the Boy Scout troop. First aid, sig-

nalling, handicraft, camping, athletics and games, stories, trees, birds, rocks, stars, etc., the problems and the aims of the Boy Scout movement. One lecture and one laboratory period. Hikes will be arranged. Spring quarter. Two credits.

Lec. T. S. 11:00.

Committee in Charge: Professors George R. Hill, Jr., Richards, Fletcher, Henry Peterson, William Peterson, Jenson, Oberhansley.

22. MUSIC FOR SCOUT MASTERS. Simple facts about fundamentals of music, selection of songs; the art (how, why, when) of conducting. The boy's voice—its care and development, part singing. How to sing and how to listen. The joy of singing. Musical equipment necessary for scout masters. Fall or Winter quarter. Two credits.

T. Th. 9:00. 152 A Main.

Johnson

24. APPRENTICE TEACHING IN SCOUTMASTERSHIP. For prospective scoutmasters and other social leaders. One lecture each week and active participation as assistant scoutmaster in registered troops. Prerequisites, Education 1 and 21. One or two credits.

Time to be arranged.

Oberhansley and Scout Commsision of the Logan Council of Boy Scouts.

29, 30. PUBLIC SCHOOL MUSIC FOR GRADE TEACHERS. To prepare the average grade teacher to teach music in her own room. The fundamentals of music and how to present them to children with special emphasis on singing and song material for children. Learning to read vocal music from the printed page. Care and development of child voice. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00.

Johnson

31. HISTORICAL DEVELOPMENT OF THE PRINCIPLES OF EDUCATION. The evolution of education in ancient Greece and Rome. A study of the ideals and processes of the Greeks and Romans. Fall quarter. Three credits.

Sec. 1. M. W. F. 10:00. Room 177 Main.
Sec. 2. T. Th. S. 10:00. Room 358 Main.

McClellan

32. HISTORICAL DEVELOPMENT OF THE PRINCIPLES OF EDUCATION. The rise and growth of Christianity with its schools and systems of education in Europe down to modern times. Winter quarter. Three credits.

Sec. 1. M. W. F. 10:00. Room 177 Main.
Sec. 2. T. Th. S. 10:00. Room 358 Main.

McClellan

33. HISTORICAL DEVELOPMENT OF THE PRINCIPLES OF EDUCATION. European education transplanted and gradually adapted to American conditions and to democracy. The growth and development of American education to the present. Education 31 and 32 suggested as a preparation for this course. Spring quarter. Three credits.

Sec. 1. M. W. F. 10:00. Room 177 Main.
Sec. 2. T. Th. S. 10:00. Room 358 Main.

McClellan

41. PRINCIPLES OF EDUCATION. Primary Methods. The spontaneous purposeful activity of the child as the basic principle determining method. Subject matter reviewed in the light of the foregoing thesis. Significance to teachers of the fact of individual differences. Consideration of school room equipment, organization and play activity. Fall quarter. Three credits.

T. Th. S. 8:00. Room 302 Main.

Bowen

42. APPRENTICE TEACHING. This course in practice teaching is open to Sophomores who have had psychology and principles of education. This course is required for certification to

teach by the State Board of Education. Those who train must attain an average standing of B. Prerequisites, Education 1, 2, and 41. It can be taken in the afternoon. Any quarter. Six to twelve hours credit.

Peterson

51. Drawing For Public Schools. Methods and technic of drawing as taught in the graded schools, also blackboard drawing. Fall quarter. Three credits.

T. Th. S. 11:00.

Fletcher

52. Normal Design and Color as used in graded schools. Methods of doing and teaching design and color to children. Picture study will also comprise a part of the course. Winter quarter. Three credits.

T. Th. S. 11:00.

Fletcher

53. Handiwork For Graded Schools. Stick printing, stencilling, weaving, basketry, enamelling, jesso, pottery, and other crafts suited to graded schools will be taken up. Spring quarter. Three credits.

T. Th. S. 11:00.

Fletcher

SENIOR COLLEGE COURSES

*101. Principles of Psychology. Designed for those who are preparing to teach, to become county agents or home demonstrators. The course deals with the processes of mental activity and growth and is prerequisite for Psychology of Adolescence and Educational Psychology. Fall quarter. Three credits.

M. W. F. 11:00: Room 177 Main.

Peterson

*102. Psychology of Adolescence. A course for those preparing to become high school teachers or directors of adolescents

*To be taken in the junior year.

in summer work. Prerequisite, Education 101 or equivalent. Winter quarter. Three credits.

M. W. F. 11:00. Room 177 Main.

Peterson

*103. Advanced Educational Psychology. For prospective teachers and leaders of social and other activities. The principles studied in preceding courses are here applied to the processes of teaching and leadership. Prerequisite, Education 101 or its equivalent. Spring quarter. Three credits.

M. W. F. 11:00. Room 177 Main.

Peterson

111. Science of Education. A study of the educative process and of the means and aims of education and of their application in teaching and community leadership. By special permission Sophomores may be admitted to this course. Prerequisite, Education 101. Fall quarter. Three credits.

T. Th. S. 10:00. Rooms 177 Main *Peterson*

112. Science of Education—Rural Education. A survey and study of proposed objectives for rural elementary schools; tendencies in curriculum revision and the reorganization of rural schools; the preparation of rural teachers; and the functions of the schools as agents in the solution of rural life probems. Three credits. Winter quarter.

T. Th. S. 8:00. Room 177 Main. *Oberhansley*

113. Science of Education—Methods in Extension Work. Intensive study of the problems and functions of county agricultural agents, county home demonstration agents, agricultural specialists, home economics specialists, club agents and state extension leaders. The following topics will be covered: A brief history of extension work; present organization and status of extension work; choosing the local program of work; develop-

*To be taken in the junior year.

ing projects; training local leaders; follow-up methods; methods in conducting meetings, demonstrations, exhibits, field trips, and contests; office organization, equipment, etc.; report writing, letter writing, and preparation of illustrative and other publicity material; the outlook for extension workers. Field trips will be made into those parts of the State where the most successful extension work is being done. Primarily for graduate students. Seniors may be admitted. Spring term.

Hours and credit to be arranged.

Oberhansley and Extension Staff

114. SCIENCE OF EDUCATION—RURAL LIFE PROBLEMS. The study of the conditions of rural life; physical influences; psychology of farm life; structure of rural society; rural social institutions; rural leadership; surveys; organization and social agencies.

The work of the rural high schools in the solution of rural life problems will be emphasized. Three credits. Spring quarter.

M. W. F. 8:00.

Oberhansley

115. APPRENTICE TEACHING IN SECONDARY SCHOOLS. Prerequisites. Education 101, 102, 103 and 111. Any quarter. Five to ten hours credit.

Hours to be arranged.

Peterson

120, 121. SCIENCE OF EDUCATION—METHODS OF TEACHING HOME ECONOMICS. A course designed for teachers of home economics. Determination of objectives in home economics teaching. A study of the types of schools and courses; recent legislation; standards of accomplishment. General discussion of methods in teaching home economics. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. Room 26 Home Ec.

Kewley

122. APPRENTICE TEACHING IN HOME ECONOMICS. This course provides an opportunity for a first hand study of school plants, buildings, equipment, school procedure and good teaching. Supervised observation of all phases of home economics teaching in various schools of the State. Each apprentice teacher is required to teach a minimum of 30 successful lessons. Round table discussions and individual weekly conferences to parallel practice teaching. Prerequisites, Education 120, 121. Fall, Winter or Spring quarters. Five to ten credits.

Daily from 11:15 to 12:45.

Kewley

124, 125, 126. SCIENCE OF EDUCATION—METHODS OF TEACHING AGRICULTURE. For prospective Smith-Hughes and agricultural teachers. The home project and agricultural job analysis will be the basis of the course. Special topics considered are: The Smith-Hughes law and how it operates in Utah; selection and arrangement of subject matter; lesson planning; management of students in class room, laboratory and field; visual and extension methods of teaching. Prerequisites, Education 101 or its equivalent. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. Room 177 Main.

Oberhansley

127. APPRENTICE TEACHING IN AGRICULTURE. Opportunity will be provided for a limited number of men to do some personally directed teaching in Smith-Hughes work in the Logan High School, North Cache High School and the South Cache High School. Prerequisite, first three year's of Smith-Hughes course. Fall, Winter and Spring quarters. Ten credits.

Time to be arranged.

Oberhansley

128. THE SCIENCE OF EDUCATION—THE TEACHING OF NATURAL SCIENCE. This course is designed for those preparing to teach nature in the elementary schools or natural science in high

schools. Lectures, class discussions, laboratory work and many excursions to study nature at first hand. Prerequisites, Botany 1 or 21, 22 and 23, Zoology 1 or 3, one additional laboratory course in biology, educational pschology and principles of education. Open to Sophomores and Senior College students. Two lectures ande one laboratory period each week. Spring quarter. Three credits.

Lec. T. S. 10:00. Lab. T. 2:00 to 5:00.

Hill

130. SUPERVISION OF HOME PROJECTS. This course includes training in extension methods including demonstrations, keeping records and reports, outings, personal visits and general supervision of a group of boys in summer projects. One to five credits. Summer quarter.

Oberhansley

140, 141, 142. SCIENCE OF EDUCATION—METHODS OF TEACHING PHYSICAL EDUCATION. This course deals with the principles involved in the teaching of gymnastics, dancing and games, and gives an oportunity for practice teaching. Fall, Winter and Spring quarters. Two credits each quarter.

Lec. T. 12:00. Lab. Th. 12:00. Room 12, Home Ec.

Cooper

151. SCIENCE OF EDUCATION—EDUCATIONAL ART FOR HIGH SCHOOLS. For those who want to teach art under the Smith-Hughes plan or in High School. The teaching of drawing, the crafts, costume design, interior decorations, commercial design, etc. Prerequisite, a knowledge of drawing and design. Winter quarter. Three credits.

T. Th. S. 9:00. Art room, Main.

Reynolds

196. THE TEACHING OF LITERATURE IN THE HIGH SCHOOL. Literature is considered as a normal function of every student, and is studied in relation to individual and social progress. The

choice of literature is based upon the normal literary life of the students. Fall quarter. Three credits.

M. W. F. 9:00. Room 357 Main.

Coulter

GRADUATE COURSES

261, 262, 263. SEMINAR IN EDUCATION. A study of special problems in the various phases of education. Individuals will choose or be assigned problems related to their work or prospective careers which they will study thoroughly and report to the group or class. Another aspect of the work of the seminar will be the keeping abreast of the latest researches and reviews of the best current literature in education. Open to seniors and graduates who have laid the necessary foundation in psychology and education. Fall, Winter and Spring quarters. One and one-half credits each quarter.

Hours to be arranged. Room 177 Main.

The Staff

For closely related courses see: English 95 (Literature for Children.)

ENGLISH

N. A. PEDERSEN, *Professor.*
V. C. COULTER, *Professor.*
F. R. ARNOLD, *Professor.*
CHARLOTTE KYLE, *Assistant Professor.*
*WALLACE J. VICKERS, *Assistant Professor.*
IVA MAUD DUNN, *Assistant Professor.*

JUNIOR COLLEGE COURSES

5. COLLEGE GRAMMAR. The course repeats each quarter. Five credits.

M. T. W. Th. F. 9:00. Room 360 Main.

Kyle

10. FRESHMAN COMPOSITION. The first two quarters include drill in the fundamentals of good writing and in rhetorical details, together with practice on the forms of written discourse. The Spring quarter will be given largely to classics. Three credits each quarter.

Sec. 1. M. W. F. 8:00. Room 360 Main.

Kyle

Sec. 2. T. Th. S. 8:00. Room .....

Sec. 3. M. W. F. 9:00. Room 357 Main.

MeClellan

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*On leave of absence.

Sec. 4. M. W. F. 10:00. Room 359 Main.

Dunn

Sec. 5. M. W. F. 11:00.

.....

Sec. 6. Winter and Spring quarters only. T. Th. S. 8:00.

.....

Sec 7. Spring quarter only.

.....

English 10 is a prerequisite for all courses in English that follow.

50, 51, 52. THE HISTORY OF ENGLISH LITERATURE. The literature of Great Britain from the Anglo-Saxon period to the present time, with emphasis upon the literature since the time of Shakespeare. Required of English majors. Fall, Winter and Spring quarters. Three credits each quarter.

Sec. 1. M. W. F. 8:00. Room 358 Main.

Pedersen

Sec. 2. T. Th. S. 8:00. Room 360 Main.

Kyle

53, 54, 55. THE NINETEENTH CENTURY ENGLISH NOVEL.
(Not given in 1924-25.)

70. THE SHORT STORY.
(Not given in 1924-25.)

80, 81, 82. AMERICAN LITERATURE. The literature of America from Colonial times to the present. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 357 Main.

Coulter

90, 91, 92. WORLD MASTERPIECES.
(Not given in 1924-25.)

95. LITERATURE FOR CHILDREN. This course considers the place of literature in child life, the types of literature which may be expected to function in building desired attitudes, and effective methods of presentation. The work will be sufficiently flexible to permit intensive study of any grade, according to the desire of the individual student. Winter quarter. Three credits.

M. W. F. 9:00. Room 357 Main.

Coulter

SENIOR COLLEGE COURSES

108, 109, 110. ADVANCED WRITING. A study of current models as found in Cunliffe and Lomer's "Writing of Today." Considerable freedom of choice as to type of writing the student will undertake. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00. Room 358.

Pedersen

115, 116, 117. THE ENGLISH ESSAY.

(Not given in 1924-25.)

120, 121. DEBATING SEMINAR. The seminar is for those who desire to make places on the inter-collegiate debating teams. Credit is assigned for work in the seminar in connection with work on inter-collegiate teams. Fall and Winter quarters. Time to be arranged to meet the needs of the group. Credit to be determined by the Debating Council.

125, 126, 127. JOURNALISM. News collecting, study of country and city papers, preparation of agricultural feature stories for magazines and newspapers. Students of ability taking this course may sell much of their class work to the College Department of Information-Service, thus getting much training in publicity work and in agricultural editorship. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 1:00. Room 351.

Arnold

130, 131. THE BIBLE AS ENGLISH LITERATURE.
(Not given in 1924-25.)
140, 141, 142. SHAKESPEARE. (Not given in 1924-25.)

145, 146, 147. WORDSWORTH AND THE ROMANTIC MOVEMENT. The course will trace the development of romanticism during the latter eighteenth century with special attention to Wordsworth and his contemporaries. The literary movement will be related to the general social, religious, political, and educational thought of the period. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Room 357 Main.

Coulter

150, 151, 152. THE ENGLISH POETS OF THE NINETEENTH CENTURY. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 360 Main.

Kyle

153, 154, 155. CHAUCER. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00. Room 358 Main.

Pedersen

160, 161, 162. RECENT NOVEL. (A course in recent literature will be organized if there is call for it. The class may elect the novel, or poetry.) Fall, Winter and Spring quarters.

T. Th. 11:00. Room 357 Main.

Coulter

163, 164, 165. RECENT DRAMA.
(Not given in 1924-25.)

170, 171, 172. THE ENGLISH DRAMA. A study of representative types of the various periods from the time of the Miracle Play to the present. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Room 358 Main. ***Pedersen***

196. THE TEACHING OF LITERATURE IN THE HIGH SCHOOL. Literature is considered as a normal function of every student, and is studied in relation to individual and social progress. The choice of literature is based upon the normal literary life of the students. Fall quarter. Three credits.

M. W. F. 9:00. Room 357 Main.

Coulter

GRADUATE COURSES

205, 206. ANGLO-SAXON. Open to qualified seniors. Fall and Winter quarters. Three credits each quarter.

M. W. F. 10:00. Room 358 Main.

Pedersen

207, 208. MIDDLE ENGLISH. Winter and Spring quarters. Three credits each quarter. Open to qualified seniors.

T. Th. S. 11:00. Room 360 Main.

Pedersen

ENTOMOLOGY

I. M. HAWLEY, *Professor.*
*H. J. PACK, *Assistant Professor.*
D. A. GILL, *Instructor.*

See Department of Zoology for related work.

JUNIOR COLLEGE COURSES

1. AGRICULTURAL ENTOMOLOGY. A brief study of injurious insects with special emphasis on the forms which occur in the intermountain region. Winter quarter. Three credits.

T. Th. S. 8:00.

Hawley

3. GENERAL ENTOMOLOGY. A study of the structure, classification and life histories of insects. Special attention will be given to interesting instincts and habits. Methods of collecting, pre-

*On leave of absence.

serving and rearing will be briefly explained. A course for teachers and others who desire a general knowledge of our common insects. Field trips will be taken when weather permits. Spring quarter. Four credits.

T. Th. S. 8:00. Lab. W. 2:00 to 5:00. *Hawley*

4. ECONOMIC ENTOMOLOGY. Fruit pests. This course considers in detail the life histories and methods of control of the insects that injure fruit in Utah. These pests will be studied in the field and laboratory to supplement the class work. Fall quarter. Four credits.

T. Th. S. 9:00. Lab. W. 2:00 to 5:00.

Hawley

5. ECONOMIC ENTOMOLOGY. Truck and field crop pests. This course considers in detail the life histories and control methods of the insects, that are injurious to general field and truck crops in Utah. Field trips will be taken and the pests will also be studied in the laboratory. Fall quarter. Four credits.

T. Th. S. 9:00. Lab. W. 2:00 to 5:00.

(Not given 1924-25.)

Hawley

6, 7. APICULTURE. A study of honey bees from the practical standpoint. The winter quarter will be spent in fundamental text book work while the work of the spring quarter will be carried on mostly in the College apiary, learning the habits and methods of handling these insects. Winter and Spring quarters. Three credits.

Hours to be arranged.

Gill

SENIOR COLLEGE COURSES

102. SYSTEMATIC ENTOMOLOGY. The structure of insects is studied in detail in order that the students will be able to use

the tables employed in classification. Each student must collect, mount and properly identify a representative collection of insects found in the vicinity of Logan. Fall, Winter or Spring quarters. Three credits. Graduate credit may be allowed for this course.

Hours to be arranged.

Hawley

106. ENTOMOLOGICAL LITERATURE. Each student investigates and reports on the literature of some insect or insects within his state. Historical development of entomology, current entomological literature and bibliographies are considered. Prerequisites, Entomology 3, 4, 5 or 102. Graduate credit may be allowed for this course. Fall, Winter or Spring quarter. Three credits.

Hawley

107. ENTOMOLOGICAL TECHNIC. Detailed studies of methods of collecting, preserving and rearing insetcs. A course in entomology involving the making of exhibit collections, the methods of breeding unknown forms, the principles in insect photography, etc. A course to fit students for specialized work in entomology. Graduate credit may be allowed for this course. Prerequisite, Entomology 3, 4, 5 or 102.

Hours and credits to be arranged. *Hawley*

108. INSECTS IN RELATION TO MAN. Insects that annoy man at home and in the field will be considered both as pests and disease carriers. Beneficial insects will also be considered. No prerequisite. Winter term. Two credits. A nontechnical course of important information.

T. S. 10:00. *Hawley*

GRADUATE COURSE

201. RESEARCH. Students may select or will be assigned certain problem dealing with the different phases of entomology.

The amount of credit will depend on the nature of the problems and the time spent. Thesis. Open to undergraduates only by special permission. Prerequisite, Entomology 3, 4, 5, or 120. Hours and credits to be arranged.

Hawley

FARM AND AUTO MECHANICS (See Page 228)

AUTO MECHANICS (See Page 228)

FARM MECHANICS (See Page 230)

IGNITION, STARTING AND LIGHTING (See Page 231)

OXY-ACETYLENE, ELECTRIC ARC AND RESISTANCE WELDING (See Page 234)

TRACTOR REPAIR AND OPERATION (See Page 235)

VULCANIZING AND TIRE REPAIR (See Page 235)

FOODS AND DIETETICS (See Page 244)

GEOLOGY

WILLIAM PETERSON, *Professor.*
REED BAILEY, *Instructor.*

SENIOR COLLEGE COURSES

102, 103, 104. GENERAL GEOLOGY. Dynamic, structural and historical geology. The changes the earth's surface is now undergoing and the forces which produce them as a means of interpreting the past. Laboratory study of the common rocks and rock forming minerals, with special stress on the soil product resulting from rock disintegration. A careful study of the geological development of the North American continent. Field trips with written reports. Students taking Geology 102, 103, 104, should also take Philology 1. Prerequisites. Chemistry 1 and Zoology 3 and 4. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00. Room 283 Main.

Peterson

105, 106. General Geology. The same course material will be presented in Geology 105, 106 as in Geology 102, 103, 104, but it will be given in two quarters, five days a week, instead of in three quarters. three days a week. This course will be given if ten or more students apply for it. Winter and Spring quarters. Five credits each quarter.

Daily, except Th. 10:00. Room 283 Main.

Bailey

107. 108, 109. Economic Geology. The first part of the course will deal with the non-metals with special emphasis on mineral fertilizers; the second part, with metals, their origin and economic uses. Any quarter may be taken without the others. Prerequisites, Geology 102, 103, 104 or 105, 106. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. Room 283 Main.

Bailey

110. Common Minerals and Rocks. The origin and formation of the different kinds of rocks, both sedimentary and igneous and of about seventy-five minerals with methods for their determination. Prerequisites, Geology 102, 103, 104 or 105, 106 and Chemistry 1. Lectures, readings and laboratory work. Fall, Winter and Spring quarters. Credit to be arranged. Credit should total five hourse.

Bailey

111. Geology of Ground Water. A study of structure to determine the cause of springs, artesian wells, etc. Structural characteristics that will yield water, either through tunneling or boring. Prerequisites, Geology 102, 103, 104 or 105, 106 and Physics 1, 2, 3. Spring quarter. Five credits.

Daily, except Th. 11:00. Room 283 Main.

Peterson and Bailey.

112. ADVANCED PHYSIOGRAPHY. Prerequisites, Geology 102, 103, 104 or 105, 106. Fall quarter. Three credits.

T. Th. S. 8:00. Room 283 Main.

(Not given in 1924-25.)

Bailey

114. Field methods necessary in mapping the detailed geology of an assigned area.

Time and credit to be arranged.

Peterson

115. LOCAL GEOLOGY. The relief of Utah and bordering states. Relation of the country rock and physical features to productive land areas. One piece of relief modeling may be required from each student. Prerequisite, Geology 102, 103, 104 or 105, 106. Fall quarter. Three hours. Two or three credits. Laboratory to be arranged.

Peterson and Bailey

116. GEOLOGY. Relief modeling, methods by which any topographic map may be converted into a true relief model including either the geology or detailed geography as the student may select. Either Fall or Winter quarter. Two or three credits.

Hours to be arranged.

Peterson

117. AGRICULTURAL GEOLOGY. Local geology in the valleys of Utah. A detailed study will be made of the rock formations surrounding each valley and the character of soils from the disintegration of these rocks. The course will be prefaced by a study of structural and relief features of Utah as well as a general survey of the drainage systems as they have influenced the disposition of disintegrated rock in the forming of soil. Fall quarter. Three credits.

T. Th. S. 11:00. Room 283 Main.

Bailey

118. ENGINEERING GEOLOGY. Dynamical and structural geology as it applies to construction work. Special attention is given to materials affecting road construction, dams and excavations. Winter quarter. Five credits.

Daily, except Th. 11:00. Room 283 Main.

Peterson and Bailey

HISTORY

JOEL E. RICKS, *Professor.*

JUNIOR COLLEGE COURSES

1. EUROPEAN HISTORY. Survey from the Fall of Rome to 1500. Fall quarter. Three credits.

Sec. 1. Th. S. 9:00. Room 356 Main.

Ricks

Sec. 2. M. W. F. 11:00. Room 356 Main.

Ricks

2. EUROPEAN HISTORY. Survey of the Later Medieval and Early Modern Period. 1500-1789. Winter quarter. Three credits.

Sec. 1. T. Th. S. 9:00. Room 356 Main.

Ricks

Sec. 2. M. W. F. 11:00. Room 356 Main.

Ricks

3. EUROPEAN HISTORY. Survey of the Modern Period, 1789 to the present. Spring quarter. Three credits. Repeats Summer quarter.

Sec. 1. T. Th. S. 9:00. Room 356 Main.

Ricks

Sec. 2. M. W. F. 11:00. Room 356 Main.

Ricks

13. UNITED STATES HISTORY. Survey of United States History from earliest times to 1783. Three credits. Fall quarter.

M. W. F. 8:00. Room 356 Main.

Ricks

14. UNITED STATES HISTORY. From the Revolution through the Civil War. Winter quarter. Three credits.
M. W. F. 8:00. Room 356 Main.

Ricks

15. UNITED STATES HISTORY. From the close of the Civil War to the present time. Spring quarter. Three credits.
M. W. F. 8:00. Room 356 Main.

Ricks

SENIOR COLLEGE COURSES

120. EUROPEAN HISTORY. The Renaissance and the Reformation. Fall quarter. Three credits.
M. W. F. 10:00. Room 356 Main.

Ricks

124. EUROPEAN HISTORY. The French Revolution and Napoleon. Winter quarter. Three credits.
M. W. F. 10:00. Room 356 Main.

Ricks

126. EUROPEAN HISTORY. Problems of Europe 1815-1870. Spring quarter. Three credits.
M. W. F. 10:00. Room 346 Main.

Ricks

131. UNITED STATES HISTORY, THE WEST. 1763-1830. The development of the West from the Alleghanies to the Mississippi. Fall quarter. Three credits.
T. Th. S. 10:00. Room 356 Main.

Ricks

132, 133. UNITED STATES HISTORY. Trans Mississippi West. Study of the exploration, settlement and development of the West with special emphasis upon Utah, 1803-1870. Students desiring this course should register for both quarters of Trans-Mississippi West. Credit not given for one quarter only. Winter and Spring quarters. Three credits each quarter.
T. Th. S. 10:00. Room 356 Main. *Ricks*

HORTICULTURE

T. H. ABELL, *Assistant Professor.*
....., *Instructor.*

Note: Students who major in Horticulture are required to take courses 2, 3, or 5, 102, 103, 104, 108, 109 and Agronomy 109. The remainder of the 24 credit hours must be chosen from the other courses offered in Horticulture. The suggested course of studies outlined on page .... should be adhered to as closely as possible. Agricultural Economics 102 and Irrigation 1 are especially recommended. Botany 21, 22, 23 should precede or accompany all college courses in horticulture.

JUNIOR COLLEGE COURSES

1. HORTICULTURE. An introductory course to the field of horticulture. Some phases of the production of fruits, vegetables, flowers and their uses by man. Field trips and laboratory exercises in horticultural practices. Fall quarter. Four credits.
Lec. M. W. F. 11:00. Lab. F. 2:00. Room 179 Main.
Abell

2. PLANT PROPAGATION. Study of principles and practices of propagating plants by spores, seeds, grafting, cutting, layering and separation. Required for students majoring in horticulture. Prerequisite, Botany 21, 22, 23. Winter quarter. Three credits.
Lec. T. Th. 9:00. Lab. T. 2:00 to 5:00. Room 179 Main.
Abell

3. OLERICULTURE. A study of the principles of vegetable production, both home and commercial. Laboratory work in variety study and field problems. Spring quarter. Three credits.
Lec. W. F. 9:00. Lab. T. 2:00 to 5:00. Room 179 Main.
Abell

4. LANDSCAPE GARDENING AND FLORICULTURE. An introduction to the theory and practice of beautifying the home sur-

roundings, in the city and on the farm. Laboratory instruction in growing flowers, designing of home grounds, plant materials. Sec. 1 for students in School of Agriculture: Prerequisite, Mechanical Drawing 6. Sec. 2 for women students. Fall quarter. Four and three credits.

(Not given 1924-25.)

5. COMMERCIAL GARDENING. Vegetable production for the market and canning factory. Winter quarter. Two credits.

(Not given 1924-25.)

6. NUT CULTURE. The principles and practice of growing nuts in the arid west.

(Not given 1924-25.)

SENIOR COLLEGE COURSES

101. GENERAL HORTICULTURE. Study of various phases of horticulture from the viewpoint of correlation with general and specialized farming. Intended primarily for Senior College Agricultural Students not specializing in horticulture. Prerequisite, Botany 1 or 21. Spring quarter. Five credits.

Lec. M. W. F. 11:00. Lab. M. W. 2:00 to 5:00. Room 179 Main.

Abell

102. SYSTEMATIC POMOLOGY. Botany and origin of fruit species, variety study and identification, scoring and judging of fruit exhibits. This course required for a major in horticulture. Prerequisites, Botany 21, 22, 23. Fall quarter. Three credits.

W. 9:00. Lab. T. W. 2:00 to 5:00. Room 179 Main.

103. FRUIT PRODUCTION. Fundamentals of producing of orchard and small fruits. This is an advanced course required of all students majoring in horticulture. Prerequisite, Botany 21, 22, 23. Chemistry 1, 2 and 21, 22, Irrigation 1, and Horticulture 2. Winter quarter. Four credits.

M. T. W. F. 11:00. Room 179 Main.

Abell

104. ORCHARD PRACTICE. Field trips to study orchard problems, and exercises in pruning and pest control. Prerequisite, Horticulture 103 and Entomology 104. Required for a major in Horticulture. Spring quarter. Three credits.

Lec. F. 10:00. Lab. F. 1:00 to 6:00.

Abell

105. COMMERCIAL HORTICULTURE. Fruit and vegetable harvesting, grading, packing, handling and storing. Fall quarter. Three credits.

(Not given 1924-25.)

107. HISTORY OF CULTIVATED PLANTS. Historical consideration of the gradual adaption of plants to the uses of man, and the factors in their improvement. Prerequisite, Botany 21, 22, 23. Agronomy 109. Winter quarter. Two credits.

T. Th. 10:00.

Abell

108, 109. SEMINAR. Review of current literature. Required for seniors and graduate students in horticulture; open also to juniors. Winter and Spring quarters. One credit each quarter.

Time to be arranged.

Abell

GRADUATE COURSES

200. HORTICULTURAL BY-PRODUCTS. Utilization of inferior and waste products. Study of modern commercial methods of canning, preserving, drying. Laboratory study of common utilization processes and products. Prerequisite, Horticulture 1 or 103, and 3 or 5, Chemistry 21, 22, Bacteriology 1. Fall quarter. Three credits. Two lectures and one laboratory. Room 179.

Time to be arranged.

Abell

201. METHODS OF RESEARCH. Organization and methods used in the investigation of horticultural problems. Analysis and criticism of published reports. Practice in outlining methods of attack. Open to graduate students with adequate prepara-

tion in basic sciences and horticulture. Winter quarter. Three credits. Two lectures and one laboratory. Room 179 Main.

Time to be arranged. *Abell*

202, 203, 204, 205. RESEARCH. Graduate students are required to do research work in some phase of horticulture, a thesis to be submitted on the work done in this course. Fall, Winter, Spring and Summer quarters.

Time to be arranged.

Abell

HOUSEHOLD ADMINISTRATION (See Page 246)

IRRIGATION AND DRAINAGE (See Page 225)

LIBRARY ECONOMY

HATTIE SMITH, *Acting Librarian.*

1. GENERAL REFERENCE. Classification and arrangement of books, the card catalog, reference books. Text: "List of Reference Books in the Utah Agricultural College Library." Winter and Spring quarters. One credit each quarter.

T. 1:00. Library, Main.

Smith

MARKETING

INCLUDING ADVERTISING AND SELLING

D. E. ROBINSON, *Professor.*
W. L. WANLASS, *Professor.*
P. E. PETERSON, *Professor.*
M. H. HARRIS, *Professor.*
W. E. THAIN, *Assistant Professor.*
LEON D. HARDY, *Assistant Professor.*
VON T. ELLSWORTH, *Instructor.*

SENIOR COLLEGE COURSES

101. PYCHOLOGY OF ADVERTISING AND SELLING. A study of the chief human instincts, needs and emotions. How the laws

of psychology may be applied to business. Prerequisites or parallel, Economics 1, 2, 3 or 120, 121. Fall quarter. Three credits.

M. W. F. 11:00. Room 352 Main.

Hardy

102. ADVERTISING. Designed to meet the needs of all students in business who want a general knowledge of advertising. The literature of advertising; the makeup of advertisements for newspapers and magazines; some experience in the writing of advertisements. Prerequisites, or parallel, Economics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

M. W. F. 11:00. Room 352 Main.

Hardy

103. SALESMANSHIP. Designed to meet the needs of students who want a general knowledge of the principles underlying selling. Demonstration sales. Prerequisites or parallel, Economics 1, 2, 3 or 120, 121. Spring quarter. Three credits.

M. W. F. 11:00. Room 352 Main.

Hardy

111. AGRICULTURE COMMERCE. This course will cover the basic facts necessary to a clear understanding of the problems in marketing. Supply and demand of farm products, prices and production, the economic relations of the farmer, the middleman and the consumer receive special consideration. Prerequisites, Economics 1, 2, 3 or 120, 121. Fall quarter.

T. Th. S. 11:00. Room 132. Main.

Ellsworth

112. MARKETING OF FARM PRODUCTS. Problems of marketing specific farm products such as livestock, grains, potatoes, hay, dairy products, etc., will be studied from the standpoint of the economic forces which give rise to such problems. Possibil-

ities of improvement of the present system will be considered. Prerequisites, Econmics 1, 2, 3 or 120, 121. Winter quarter. Three credits.

T. Th. S. 11:00. Room 132. Main.

Ellsworth

113. Co-operative Marketing. This course is to acquaint students with the co-operative marketing associations of the United States with particular reference to the principles involved and the working out of these principles. Spring quarter. Three credits.

T. Th. S. 11:00. Room 132. Main.

Ellsworth

121. Geography of Commerce. This course deals with geography as related to commerce. The environmental factors, natural resources, climate, population, etc., will be studied from the commercial viewpoint. An analysis of their resources and industries and their geographical distribution will be made. Typical industries will be followed from the production of their raw materials to the marketing of their finished products. Fall quarter. Three credits.

M. W. F. 8:00. Room 361 Main.

Harris

131, 132. Retail Store Problems. The aim of this course is to present, by means of carefully collected and co-ordinated cases, the management problems of a retail store which arise in shaping its merchandising policies. The problems studied include accounting, statistics, organization, merchandise, selling, stock, buying, personnel, finance, price policies, and general administrative policy. (This course alternates with Modern Scientific Management. See Business Administration 105-106.)

T. Th. S. 11:00.

Peterson

141. Writing. Advertisements. An advanced course covering the preparation of advertising copy, the layout of advertise-

ments, typography, media, rates, etc. Prerequisites, Marketing 101, and 102, English 10. Fall quarter. Two credits.

T. Th. 9:00. Room 352 Main.

Robinson

142. ADVERTISING CAMPAIGNS. An advanced course covering the planning and execution of advertising campaigns, the duties of the advertising manager and the functions of the advertising agency. Prerequisite, Marketing 102. Winter quarter. Two credits.

T. Th. 9:00. Room 352 Main.

Robinson

151. SALES MANAGEMENT. An advanced course covering the duties of sales manager, sales policies, routing salesman. Prerequisite, Marketing 103. Spring quarter. Two credits.

T. Th. 9:00. Room 352 Main.

Robinson

161. BUSINESS LETTERS. An advanced course covering a study of the business letter, including sales, credit, collection and complaint letters and letters of application. Prerequisite, English 10. Fall quarter. Two credits.

(Not given 1924-25.)

Robinson

162. DIRECT MAIL ADVERTISING. An advanced course covering the preparation of direct mail advertising material, including booklets, inclosures, house organs, etc., but excluding sales letters, which are covered in Marketing 161. Prerequisite, English 10. Winter quarter. Two credits.

(Not given 1924-25.)

Robinson

163. DIRECT MAIL ADVERTISING. A continuation of Marketing 162. This course includes a study of business reports and correspondence supervision. Prerequisite, English 10. Spring quarter. Two credits.

(Not given 1924-25.)

Robinson

171. ADVERTISING AND SALES PROBLEMS. A course in special advertising and sales problems. The student may take up any phase of the subject for which he is adequately prepared. No student may register for this course without first securing the permission of the instructor in charge. Any quarter. Credit will be allowed in proportion to the amount of work completed. Graduate credit will be granted where the student is qualified to pursue graduate work.

Hours to be arranged.

Robinson

GRADUATE COURSES

Never before in the history of the United States has there been such a widespread and intense interest in the subject of marketing. This is particularly true with reference to the marketing of farm products and livestock. The recently established Bureau of Agricultural Economics is now the largest subdivision of the Federal Department of Agriculture. Most of the States have established marketing agencies of various kinds. If these governmental agencies are to function properly and if a better marketing system is to be evolved, there will be an ever increasing need for men and women who are thoroughly trained in the economics of marketing. It is with the hope that assistance may be given in providing facilities for this kind of training that the following graduate courses are offered.

201. ECONOMICS OF MARKETING. In this course the fundamental priniciples underlying the present distributive system will be studied carefully. The case method will be used. Fall quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

Wanlass

202. MARKETING PROBLEMS. This course will be a continuation of course 201, except that special attention will be

given to specific marketing problems, particularly those of the intermountain section. Winter quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

Wanlass

203. SEMINAR IN MARKETING. Early in the year each student will be assigned a definite problem or field for special study. During the spring quarter reports on these special assignments will be made and criticised. This work may be used to satisfy the thesis requirement for the master's degree. Spring quarter. Three credits.

T. 2:00 to 4:00. Room 280 Main.

Wanlass

MATHEMATICS

A. H. SAXER, *Professor.*
WILLARD GARDNER, *Professor.*
N. E. EDLEFSEN, *Assistant Professor.*
HOWARD MCDONALD,*.
REED BAILEY, *Instructor.*

JUNIOR COLLEGE COURSES

20. ELEMENTARY ANALYSIS. Elementary graphical methods for presenting facts. Relation of the graph to algebra, arithmetic and geometry. Review of elementary algebra. Prerequisites, one year high school algebra and geometry. Fall quarter. Three credits. Room 178 Main.

Sec. 1. M. W. F. 8:00.
Sec. 2. M. W. F. 11:00.

Saxer

21. ELEMENTARY ANALYSIS. A continuation of mathematics 20. Graphical and algebratical solution of triangles. Trigonometry and the use of trigonometric tables. Use of logarithms,

*Absent on leave.

slide rule, etc. Prerequisite, Mathematics 20. Winter quarter. Three credits. Room 178 Main.

Sec. 1. M. W. F. 8:00.

Sec. 2. M. W. F. 11:00.

Saxer

22. ELEMENTARY ANALYSIS. A continuation of Mathematics 21. Freshman algebra with applied problems from the various departments of the college. Prerequisite, Mathematics 21. Spring quarter. Three credits. Room 178 Main.

Sec. 1. M. W. F. 8:00.

Sec. 2. M. W. F. 11:00.

Saxer

45. COLLEGE ALGEBRA. Prerequisite, one and one-half years of high school algebra. Fall quarter. Five credits.

Daily, except Thursday 8:00.

Bailey

46. TRIGONOMETRY. Prerequisite, Mathematics 45. Winter quarter. Five credits.

Daily, except Thursday 8:00.

Bailey

47. ELEMENTARY CALCULUS. An introduction to the Differential and Integral Calculus. Prerequisite, Mathematics 22 or 46. Spring quarter. Five credits.

Daily except Thursday 8:00.

Bailey

50. GENERAL ASTRONOMY. Prerequisites, General Physics, and Mathematics 22 or 46. Spring quarter. Five credits.

Daily, except Saturday, 8:00.

(Not given 1924-25.)

60. MATHEMATICAL THEORY OF INVESTMENT. Prerequisite, Mathematics 22 or 45. Three credits. Winter quarter.

T. Th. S. 8:00.

Saxer

61. PROBABILITY AND LIFE INSURANCE. A continuation of Mathematics 60. Prerequisite, Mathematics 60. Spring quarter. Three credits.

T. Th. S. 8:00.

Saxer

SENIOR COLLEGE COURSES

107. ANALYTICAL GEOMETRY. Prerequisite, Mathematics 22 or 46. Fall quarter. Three credits. Time to be arranged.

Edlefsen

108. DIFFERENTIAL CALCULUS. Prerequisite, Mathematics 107. Winter quarter. Three credits. Time to be arranged.

Edlefsen

109. INTEGRAL CALCULUS. Prerequisite, Mathematics 108. Spring quarter. Three credits. Time to be arranged.

Edlefsen

112, 113, 114. DIFFERENTIAL AND INTEGRAL CALCULUS. A continuation of course 47. Prerequisite, Mathematics 47. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

Saxer

120. ADVANCED ANALYTICAL GEOMETRY. With applications. Prerequisite, Mathematics 109. Fall quarter. Three credits.

T. Th. S. 11:00.

Saxer

121. ADVANCED CALCULUS. Together with applications to engineering and the sciences. Prerequisite, Mathematics 120. Winter quarter. Three credits.

T. Th. S. 11:00.

Saxer

122. DIFFERENTIAL EQUATIONS AND THEIR APPLICATIONS. Prerequisite, Mathematics 121. Spring quarter. Three credits.

T. Th. S. 11:00.

Saxer

MECHANIC ARTS (See Page 236)

FORGING AND GENERAL BLACKSMITHING (See Page 236)

MACHINE WORK (See Page 238)

MECHANICAL DRAWING (See Page 242)

WOODWORK AND HOUSEBUILDING (See Page 240)

METHODS IN EXPERIMENTATION AND EXTENSION

METHODS OF EXPERIMENTATION

GRADUATE COURSES

201. METHODS AND PRINCIPLES OF RESEARCH AS APPLIED TO AGRICULTURE. Work done in this course may be used to apply toward the thesis for the master's degree. Any quarter.

Hours and credits to be arranged.

The Experiment Station Staff.

211. METHODS AND PRINCIPLES OF RESEARCH AS APPLIED TO HOME ECONOMICS. Experimental work in home problems in bacteriology, infant feeding, household chemistry, in the working out of home equipment or in any problems brought in from the field. Work done in this course may be used to apply toward the thesis for the master's degree. Any quarter.

Hours and credit to be arranged.

The Experiment Station Staff.

METHODS IN EXTENSION

GRADUATE COURSES

201. METHODS OF EXTENSION WORK. Intensive study of the problems and functions of county agricultural agents, county agents, county home, demonstration agents, agricultural specialists, home economics specialists, club leaders and state extension leaders. The following topics will be covered: A brief history of extension work; present organization and status of extension work;

choosing the local program of work; developing projects; training local leaders; follow-up methods; methods in conducting meetings, demonstrations, exhibits, field trips, and contests; office organization, equipment, etc.; report writing, letter writing, and preparation of illustrative and other publicity material; the outlook for extension workers. Field trips will be made into these parts of the State where the most successful extension work is being done. Winter quarter. Credit to be arranged.

Hours to be arranged.

Extension Service Staff

211. Research in Extension Methods. Graduate Course. Any quarter.

Extension Service Staff

Note—Students who are preparing for positions as extension workers should inclue Education 101, 102, 103, 111, 113, and Extension Methods 201, 211. Extension Methods 201 is designed specially to fit teachers in agriculture and home economics for the more lucrative positions in the extension service and to enable those already in extension work to reach the higher positions in the field.

For closely related course see Education 113.

MILITARY SCIENCE AND TACTICS

Adrin B. Smith, Capt. C. A. C., *Professor.*
Wilford A. Audette, Sergeant, Coast Artillery Corps, U. S. A., *Instructor.*
Eugene J. Callahan, Sergeant, Coast Artillery Corps, U. S. A., *Instructor.*
Brice H. Cobb, Sergeant, Infantry, U. S. A., *Instructor.*

The Agricultural College of Utah is a land grant institution under the provisions of an Act of Congress of July 2nd, 1862, donating land for the establishment of colleges where the leading

object shall be practical instruction in Agriculture and the Mechanic Arts, including Military Tactics.

A two years course in military training is required at this institution of all physically fit male students as a prerequisite for graduation.

This training is an excellent course in leadership, in the science of handling men, a knowledge of which is necessary in all walks of life after graduation.

The War Department has agreed to permit the course of military training at this institution to be devoted to training the students to be Reserve Officers of the United States Army. Two branches of the Service or Reserve Officers Training Corps units have been established here: Coast Artillery and Motor Transport. The entire organization is designated officially as "The Reserve Officer's Training Corps."

Each R. O. T. C. unit has two courses—the Basic Course and the Advanced Course. In the first year of military training the basic course is identical for both units. It consists of a drill period of three hours duration from 10:00 a. m. to 1:00 p. m.. each Thursday throughout the year.

During the Winter quarter, the last hour of the drill period for Freshmen is devoted to lectures and instruction on the following subjects.

Military Courtesy and Discipline
Personal Hygiene
First Aid and Sanitation
Orders and Messages
Common Law
Military Law
The Army Rifle
Interior Guard Duty
Care and Handling of Arms and Equipment
Rifle Marksmanship.

During the Winter quarter and part of the Spring quarter, the last hour of the drill period for Sophomores of each unit is devoted to lectures and instruction on the following subjects:

COAST ARTILLERY UNIT:

37 mm. Gun Infantry
Browning Automatic Rifle
Browning Machine Gun
Powders, Projectiles
Primers and Fuses
Military Explosives
Fire Control Instruments and Devices:
Azimuth Instruments
Telescopes
Altimeters
Coast Artillery Plotting and Spotting Boards
Deflection Boards
Range Correction Boards
Meterological Equipment
Wind Component Indicator
Co-incidence Range Finder
Corrector for Anti-aircraft Artillery.

COAST ARTILLERY MATERIAL:

Tractors (Artillery Type)
Repair Trucks (Artillery)
8 inch Howitzer
155 mm. Gun (C. P. F.)
Anti-aircraft Artillery
Submarine Mines.

MOTOR TRANSPORT UNIT:

The Motor Transport Corps
The Motor Transport Company
General Principles of Convoy
Care of Equipment
Signals and Road Rules
Map Reading
Loading
Convoy Problems
Technical Inspection
The Gasoline Engine
Types of Motors
Timing and Balancing
Ignition
Fuel Systems
Transmissions
The Drive
The Differential
Standardization

Students in the Basic Course who so elect may take the six weeks course in instruction at a Basic Camp during the summer following the first or second year of the Basic Course. Transportation to and from the camp, food, clothing, medical and dental treatment will be furnished free by the government.

After completing the two years Basic Course of instruction, students who have successfully qualified, are eligible to continue their military education in the advanced course of the unit in which they received their Basic Training unless otherwise authorized by the President of the Agricultural College of Utah and the Professor of Military Science and Tactics. To be thus eligible students must be considered qualified by the President of the Agricultural College of Utah and by the Professor of Military Science and Tactics.

Students who elect the Advanced Course agree in writing to pursue the course until graduation and to attend the six weeks course of practical instruction known as the "Advanced Summer Camp" which starts about the middle of June between the Junior and Senior years. The student who pursues the Advanced Course receives commutation of rations, about 30 cents a day, until graduation. Travel to and from the camp, rations, clothing, housing, and medical attention are provided free by the United States Government. In addition, the Advanced student receives 70 cents a day while at camp.

During the summer of 1925 the Coast Artillery Basic and Advanced Camps were held at Fort Scott, San Francisco, California. The Motor Transport Basic and Advanced Camps were held at the Presidio of San Francisco, California.

During the Junior and Senior years, the advanced students in addition to acting as cadet officers at the Infantry Drills of the Basic Course students, and thus receiving practical instruction in the science of handling men, receive instruction three times per week in the following subjects:

COAST ARTILLERY UNIT:

Coast Artillery Drill Regulations
Gunnery for Heavy Artillery
Orientation and Surveying
Minor Tactics
Military Law
Military Policies of the United States
Rules of Land Warfare
Heavy Artillery Material
Tactical Employment of Heavy Artillery
Observation, Spotting, Artillery Fire

Note: A knowledge of mathematics up to and including plane trigonometry is essential before enrollment in the Advanced Coast Artillery Course.

MOTOR TRANSPORT UNIT:

Minor Tactics
Manual of the Motor Transport Corps
Convoy Problems
Administration and Maintenance
Transportation Surveys
Motor Vehicle Construction and Design
Organization Operation
Military Policies of the United States
Military Law
Rules and Land Warfare
Advanced Automotive Engineering
Classroom and Shopwork
Driving and Convoy Practice.

Upon the satisfactory completion of the Advanced Course, the student, if he so desires, and is so recommended by the President of the Agricultural College of Utah and the Professor of Military Science and Tactics, will be given a commission as Second Lieutenant in the Officer's Reserve Corps in the branch in which he is qualified. He is authorized when in uniform to wear the same uniform and identical insignia as a Second Lieutenant of the same branch of the Regular Army.

The student who has accepted a commission in the Officer's Reserve Corps of the United States Army may request to attend a two weeks' camp each summer. His transportation to and from the camp will be paid by the Government and while at the camp he will receive the full pay of his rank in the Army. Reserve Officers are assigned by the Corps Area Commander to a unit of the Organized Reserves near their place of residence, which will be immediately mobilized upon the proclamation of the President of the United States that a state of war or national emergency exists and that the Organized Reserve Forces of the United States Army are to be mobilized.

The Basic Course grants one credit per quarter, which is in addition to the 180 academic credit hours required for graduation.

Basic Course:

Thursday 10:00 a. m. to 1:00 p. m.

The Military Department.

The Junior and Senior Advanced students receive four credits each quarter, or 12 credits per year which count toward the 180 hours required fo rgraduation. In the School of Basic Arts and Science, Advanced Military Science and Tactics may be submitted as a minor subject for graduation.

Advanced Course:

Juniors: Thursday 10:00 a. m. to 1:00 p. m. M. W. F. 10:00 a. m. to 11:00 a. m.

Seniors: Thursday 10:00 a. m. to 1:00 p. m., M. W. F. 9:00 a. m. to 10:00 a. m.

MODERN LANGUAGES AND LATIN

F. R. ARNOLD, *Professor.*

JUNIOR COLLEGE COURSES

FRENCH

1, 2, 3. FIRST YEAR FRENCH. Walther and Ballard's Beginner's French for grammar and conversation. About 400 pages of easy prose are read. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00. Room 351 Main.

Arnold

4, 5, 6. SECOND YEAR FRENCH. French composition for grammatical review and writing in French; Lavisse's Histoire de France for conversation; translating works of nineteenth century authors. Prerequisite, French 1, or two years high school French. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Room 351 Main.

Arnold

GERMAN

1, 2, 3. First Year German. Grammar, reading and conversation. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Room 351 Main.

Arnold

SPANISH

1, 2. First Year Spanish. Grammar, conversation and reading. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. Room 351 Main.

Arnold

3. Spanish. Business correspondence, reading and conversation. Spring quarter. Three credits.

M. W. F. 9:00. Room 351 Main.

Arnold

LATIN

1, 2, 3. Grammar and reading and study of English vocabulary. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00. Room 351 Main.

Arnold

4. Caesar and Cicero. Fall quarter.

M. W. F. 9:00. Room 351 Main.

(Not given 1924-25.)

Arnold

Scientific Vocabulary 1. Intensive study of English word formation, derivation, synonyms, and figurative language in order to acquire a large English vocabularly and readily to understand scientific terms. Especially recommended for students in Historical Geology. Winter quarter. Three credits. Same course repeated Spring quarter.

T. Th. S. 9:00. Room 351 Main.

Arnold

SENIOR COLLEGE COURSES
FRENCH

101, 102, 103. Reading course in Balzac's novels. Prerequisite, two years of college French or three of high school. Fall, Winter and Spring quarters. One credit each quarter.

T. 12:00. Room 351 Main.

(Not given 1924-25.)

Arnold

104, 105, 106. FRENCH CONVERSATION. Games, dictation, learning of a one act play and writing business letters. Prerequisite, two years of college French or three years of high school. Fall, Winter and Spring quarters. One credit each quarter.

F. 12:00. Room 351 Main.

Arnold

107, 108, 109. READING COURSE IN LEADING PLAYS OF NINETEENTH CENTURY. Prerequisites, two years of college French or three of high school. Fall, Winter and Spring quarters. One credit each quarter.

F. 12:00. Room 351 Main.

Arnold

110, 111, 112. RESEARCH WORK IN FRENCH PERIODICALS AND BOOKS ON ANY ONE OF THE FOLLOWING. SUBJECTS:

a. Landscape gardening.
b. Percheron horses.
c. French finance.
d. French scientific reports.
e. Home economics.
f. Aviation.

The work will consist of outside reading and weekly reports to the instructor. Prerequisite, two years of college French or three years of high school. Fall, Winter and Spring quarters. One credit each quarter.

Hours to be arranged with instructor. *Arnold*

GERMAN

101. SCIENTIFIC GERMAN. Rapid reading of scientific texts in different subjects according to the course of each student. Specially recommended for students who have had two years work in German in high school or college and are planning to do advanced work in agronomy, botany or other sciences. Spring quarter. Three credits.

(Not given in 1924-25 except to special students.)

Arnold

MUSIC

G. W. THATCHER, *Professor.*
C. R. JOHNSON, *Professor.*
JOSEPH A. SMITH, *Assistant Professor.*

Students may enter the College choir, glee clubs, orchestra or band without taking any other music course. One credit each quarter.

1, 2, 3. ELEMENTARY THEORY. Reviews the ground work necessary for students desiring a thorough knowledge of music. Keys, scales, intervals, melody writing, sight singing. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00. Room 252 A Main.

Thatcher

4, 5, 6. APPRECIATION AND HISTORY OF MUSIC. From text. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00. Room 252 A. Main.

Thatcher

7. ANALYSIS AND CRITICISM. Arranged to supplement private music study. Fall quarter. Two credits.

T. Th. 10:00. Room 252 A Main.

Thatcher

8. AMERICAN MUSIC. Winter quarter. Two credits.

T. Th. 10:00. Room 252 A Main. *Thatcher*

9, 10, 11. ELEMENTARY HARMONY. Text used. Home study, six hours as a minimum, Applied music, individual and ensemble. Prerequisite, 2 years' study, piano or equivalent. Fall, Winter and Spring quarters. Five credits each quarter.

Sec. 2. M. W. F. 9:00. Room 252A Main.

Thatcher

12, 13, 14. ADVANCED HARMONY AND ANALYSIS. Applied music, individual and ensemble. Prerequisite, Music 3. Home study increased for this course. Five hours, Fall, Winter and Spring quarters. Five credits each quarter.

Hours to be arranged.

Sec. 1. M. W. F. 10:00. Room 252 A Main.

Thatcher

15, 16, 17. COUNTERPOINT AND SMALL FORMS. Prerequisite, Music 4. Fall, Winter and Spring quarters. Five credits each quarter.

Hours to be aranged.

Thatcher

18, 19, 20. ORCHESTRA CLASS. Provides study of standard orchestra works. Two hours a week. Two credits each quarter.

T. 11:00-1:00. Room 252 A Main.

Thatcher

21, 22, 23. CHOIR. To furnish music for chapel exercises and special occasions. Three hours per week. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 12:00. Chapel.

Johnson

24, 25, 26. GLEE CLUB. An organization of men. Membership is limited in number and decided by competition. Three hours a week. Fall, Winter and Spring quarters. One credit each quarter. Chapel.

T. 12:00; Th. 1:00; S. 12:00.

Johnson

27, 28, 29. LADIES' CHORUS. Membership is limited and decided by competition. Two hours a week. The Glee Club and Ladies' Chorus join in giving the college opera. Fall, Winter and Spring quarters. One-half credit each quarter. Room 251 A Main. *Johnson*

32. PUBLIC SCHOOL MUSIC FOR SUPERVISORS. Ability to play and sing required. Applied music in choir or glee club. Deals with theory and methods of teaching, music supervision and programs. Three hours per week. Any quarter. See Professor Johnson before registering for this course. Prerequisites, Music 1, 2, 3, 4, 5, 6. Three credits.

Hours to be arranged. Room 251 A Main. *Johnson*

41, 42, 43. BAND. To provide for study and practice of band instruments and to furnish music for athletic meets and outdoor gatherings. Fall, Winter and Spring quarters. One credit each quarter.

Smith

Private instruction may be had (the pupil paying the teacher's fee) in the following: Voice, Piano, Violin, Orchestral and Band Instruments. One credit a quarter in each course will be allowed if pupil is enrolled in Applied Music only .

For closely related courses see: Music for Scoutmasters (Education 22.) Public School Music for Grade Teachers (Education 29, 30.)

PHYSICAL EDUCATION

W. B. PRESTON, M. D., *Associate Professor.*
E. LOWELL ROMNEY, *Director of Athletics.*
KATHERINE COOPER, *Associate Professor.*
JOSEPH R. JENSON, *Assistant Professor.*
GEORGE NELSON, *Instructor.*

Because physical education determines capacity for efficiently carrying out work which a student prepares for in College it is being emphasized more and more each year.

At the beginning of each school year each student is given a medical and physical examination so that he can be properly adjusted to his physical activities.

Physical education is required in the Utah Agricultural College for ten quarters. One credit hour is given for each quarter.

Freshmen are required to meet three times a week for corrective gymnastics and sophomores are required to take an advanced course meeting twice a week. Juniors and seniors will be allowed a choice of activity, but they must report at least twice a week. If the juniors and seniors have not completed freshmen or sophomore courses, they must do so.

THE COLLEGE HEALTH SERVICE

The Health Service is maintained primarily for the care of students who may become ill during their stay on the campus. It is also looked upon as an educational department to teach preventative medicine and hygiene. Through its consultation, examination, and advice it attempts to point out the causes of ill health and to present clearly the fundamental laws of good health.

PROFESSIONAL COURSES IN PHYSICAL EDUCATION

Because of the great demand for trained leaders in community recreation, playground managers, directors of physical education for high schools, high school coaches, etc., this department offers an oportunity to major or minor in physical education.

PHYSICAL EDUCATION FOR MEN

JUNIOR COLLEGE COURSES

All courses given in Men's Gymnasium.

1A. ELEMENTARY GYMNASTICS, AND GAMES. Designed to furnish activity of such a kind and in such a way as will insure

correct posture and physical efficiency. Required of all freshmen. Every quarter. One credit each quarter.

Sec. 1. M. W. 9:00. Sec. 3. M. W. 12:00.
Sec. 2. M. W. 10:00. *Jenson*

1B. PERSONAL HYGIENE. Lectures covering personal and general hygiene, including care of skin, hair, teeth, nails, care of special senses as eye, ear, nose, and throat, study of rest, exercise and recreation. Required of all freshmen and will be given in connection with Physical Education 1. Credit granted for Physical Education 1A covers work in 1B. One lecture each week.

T. 1:00; Th. 12:00.

Jenson

2. ADVANCED GYMNASTICS. A continuation of Physical Education 1 with emphasis on more advanced types of gymnastics and heavy apparatus. Required of all sophomores. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1. T. Th. 9:00. Sec. 4. T. Th. 2:00.
Sec. 2. M. W. 11:00. Sec. 5. T. S. 10:00.
Sec. 3. M. W. 2:00. *Jenson*

3. PHYSICAL EDUCATION. This course is required of all juniors and seniors, and includes a choice of one of the following activities: The student will be held for two periods a week. Various leagues, tournaments, etc., will be arranged to make the work interesting.

a. Handball—Hours to be arranged.

b. Basketball. Sec. 1. T. S. 12:00.
Sec. 2. M. W. 3:00.
Sec. 3. T. Th. 3:00.
Sec. 4. M. W. 8:00.
Sec. 5. T. Th. 8:00.

c. Football. Sec. 1. Daily, Fall quarter, 4:00.

Romney

d. Wrestling. Sec. 1. M. W. 4:00.
Sec. 2. T. Th. 4:00.
Sec. 3. T. Th. 5:00.
Nelson

e. Track. Hours to be arranged.
Romney

f. Hikes. Every Saturday afternoon.
Jenson

g. Swimming. Hours to be arranged.
Romney and Jenson

h. Boxing. Daily 4:00.
Romney and Jenson

i. Volley ball. Daily 8:00 p. m.
Jenson

j. Tennis. Hours to be arranged. Fall and Spring quarters.

k. Heavy apparatus. Daily 4:00.
West

l. Bag punching and rowing. Hours to be arranged.
Nelson

m. Indoor baseball. Hours to be arranged.
Jenson

m. Dancing. Hours to be arranged
Cooper

PHYSICAL EDUCATION FOR WOMEN

JUNIOR COLLEGE COURSES

All courses given in Women's Gymnasium.

13, 14, 15. FRESHMAN GYMNASTICS. This course consists of exercises arranged according to their hygiene, corrective and educational value; folk dancing and games, lectures in hygiene. Required for graduation. Three hours a week are required.

Students must arrange with the instructor for the third hour. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1. M. W. 10:00.

Sec. 2. T. Th. 11:00.

Cooper

16, 17, 18. SOPHOMORE GYMNASTICS. A continuation of Physical Education 13, 14, 15. Required for graduation. Fall Winter and Spring quarters. One credit each quarter.

Sec. 1. M. W. 11:00.

Sec. 2. T. Th. 10:00.

Cooper

19, 20, 21. REMEDIAL GYMNASTICS. The work of this course is given for those students who are physically unable to take Physical Education 13, 14, 15, or 16, 17, 18. It is aranged to meet the needs of the individual student, as indicated by the physical examination and study of personal tendencies. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 9:00.

Cooper

31, 32, 33. INTERPRETIVE DANCING. This course consists of dancing as based upon natural movements. It offers an opportunity for music interpretation and pantomimic dancing. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 2:00.

Cooper

61, 62, 63. ADVANCED INTERPRETIVE DANCING. A continuation of 31, 32, 33. Open to students approved by instructor. Fall, Winter and Spring quarters. One credit each quarter.

M. W. F. 3:00. *Cooper*

81, 82, 83. ATHLETICS. A course designed to teach students to play basket ball, baseball, volley ball and tennis. Fall, Winter and Spring quarters. One credit each quarter.

(Any three hours may be elected.)

M. 4:00. T. 5:00. W. 5:00. Th. 3:00. *Cooper*

91, 92, 93. SWIMMING. Open to Juniors and Seniors. The three sections of the course will cover swimming for beginners, advanced swimming, diving and life saving. Fall, Winter and Spring quarters. One credit each quarter.

Sec. 1. T. Th. F. 1:00.
Sec. 2. M. W. F. 2:00.
Sec. 3, M. W. F. 3:00.

PROFESSIONAL COURSES

JUNIOR COLLEGE COURSES

Starred courses may be elected by Juniors and Seniors for required work in physical education.

26, 27. FIRST AID AND MASSAGE FOR MEN. This teaches how to apply immediate aid in case of sudden sickness or accident, bandaging, stopping of hemorrhage, resuscitation, application of simple antidotes in case of poisoning, caring for wounds, etc. Theory and practice in Massage. Hours to be arranged.

Jenson and Nelson

*64. GYMNASTIC DANCING AND CLOGGING. For men and women. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 8:00. *Cooper*

*71. THE DRAMATIC GAME. For women. This course takes up the fundamental play rhythms and music; the study of dramatic and singing games, showing their historical and racial significance; the development of simple folk dances from singing games; trade dances; Indian dances; pantomimes and ceremonies. Fall quarter. Two credits.

T. Th. 9:00. *Cooper*

72, 73. THEORY AND PRACTICE OF PLAYS AND GAMES AND PLAYGROUND ADMINISTRATION. For men and women. Study of the theories offered in explanation of the play tendency with

Joseph Lee's Play in Education as collateral reading; methods of presenting material in school, gymnasium or playground; organization and administration of playground, school and city recreation. Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00.

Cooper and Jenson

SENIOR COLLEGE COURSES

101, 102. COMMUNITY RECREATION LEADERSHIP. For men and women. Consists of lectures and practical work. Lectures will consider selection of suitable material, and methods of handling various groups. The practice hour will take up games and folk dances. Winter and Spring quarters. Two credits.

W. F. 10:00.

Cooper and Jenson

106, 107. KINESIOLOGY. For men and women. Application of anatomical knowledge in reference to gymnastic movements. Text, Applied Anatomy and Kinesiology, Bowen and McKenzie. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00.

Jenson

108. CORRECTIVE GYMNASTICS. For women. This course is devoted to the application of gymnastics for the correction of such common defects as flat foot, spinal curvature, etc. Open to Juniors and Seniors. Spring quarter. Three credits.

M. W. F. 9:00.

Cooper

*141, 142, 143. ELEMENTARY FOLK DANCING For men and women. Includes the study of simple folk and national dances. Study made of presentation of dance material to different age groups. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 2:00.

Cooper

*151, 152, 153. ADVANCED FOLK DANCING. For men and women. Continuation of 141, 142, 143. Fall, Winter and Spring quarters. One credit each quarter.

T. Th. 3:00.

Cooper

161, 162. METHODS OF TEACHING PHYSICAL EDUCATION. For men. This includes a comparison of the various systems of gymnastic teaching in vogue today. Also elementary and advanced instruction on various pieces of apparatus, tumbling, swimming, boxing and wrestling. Each student is expected to instruct under supervision. Fall and Winter quarters. Two credits each quarter. Text, Gymnastic Teaching, Skarstrom.

Hours to be arranged.

Jenson

170. PHYSICAL DIAGNOSIS AND MEASUREMENTS. For men and women. This course aims to train the prospective physical director to detect the common physical defects. Instruction is given in methods of taking measurements and strength tests. Spring quarter. Four credits.

M. W. F. 9:00. Fourth hour to be arranged.

Preston

For closely related courses see:

Physiology 1. Anatomy and Physiology *R. L. Hill*

Physiology 3. Personal Health. *Greaves*

Physiology 102. Advanced Physiology.

Education 10, 11. Physical Development and Health Education. *Jenson*

Education 140, 141, 142. METHODS OF TEACHING PHYSICAL EDUCATION. Women. *Cooper*

HOUSEHOLD ADMINISTRATION 24, 26. Home Health and Nursing.

Dancy

PHYSICS

FRANK L. WEST, *Professor.*
WILLARD GARDNER, *Associate Professor.*
N. E. EDLEFSEN, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1, 2, 3. GENERAL PHYSICS. The elements of physics, including mechanics, heat, electricity and magnetism, sound and light. Physics 2 is open to Winter quarter students. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. T. Th. 9:00. Lab. M. T. W. or Th. 2:00 to 5:00. First Floor, Widtsoe Hall.

Edlefsen

16. METEOROLOGY, or the Physics of the Atmosphere. The methods of weather observations, predictions, frost warnings and the relation of climate to agriculture. Prerequisite, elementary physics. Spring quarter. Three credits.

M. W. F. 9:00. First Floor, Widtsoe Hall.

West

17, 18, 19. WIRELESS TELEGRAPHY AND TELEPHONY. Fall, Winter and Spring quarters. Three credits each quarter. Prerequisite, Physics 2.

M. W. F. 11:00. First floor, Widtsoe Hall.

Edlefsen

20. APPLIED MECHANICS AND ENGINES. Prerequisite, high school physics. Fall quarter. Five credits.

Lec. M. W. F. 10:00. Lab. M. W. or T. Th. 2:00 to 5:00. First Floor, Widtsoe Hall.

West

21. APPLIED ELECTRICITY. Prerequisite, high school physics. Winter quarter. Five credits.

Lec. M. W. F. 10:00. Lab. M. W. or T. Th. 2:00 to 5:00. First Floor, Widtsoe Hall.

West

22. HEAT, LIGHT AND SOUND. Prerequisite, High school physics. Spring quarter. Five credits.

Lec. M. W. F. 10:00. Lab. M. W. or T. Th. 2:00 to 5:00. First Floor, Widtsoe Hall.

West

40. APPLIED ELECTRICITY. Prerequisite, elementary physics. Fall quarter. Three credits.

M. W. F. 10:00. First Floor, Widtsoe Hall.

Edlefsen

SENIOR COLLEGE COURSES

105, 106. PHYSICAL CHEMISTRY. Including the atomic theory, Kinetic theory of gasses, gaseous, liquid and solid states; solutions; themochemistry, electro chemistry and radio-activity. Prerequisites, elementary physics and chemistry. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. First floor, Widtsoe Hall.

West

107. ADVANCED LABORATORY WORK. Electricity and magnetism, or physical chemistry. One to five credits each quarter. Recommended to students majoring in physics.

Time to be arranged.

Edlefsen

110, 111. DIRECT AND ALTERNATING CURRENT ELECTRICITY AND ITS APPLICATION TO INDUSTRY. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. First Floor, Widtsoe Hall.

Edlefsen

118, 119, 120. THERMODYNAMICS AND PHYSICAL CHEMISTRY. Prerequisite, calculus. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00. First Floor, Widtsoe Hall.

West

150, 151, 152. APPLIED MECHANICS FOR ENGINEERS. Prerequisite, calculus. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00. First Floor, Widtsoe Hall.

Gardner

160, 161, 162. STATISTICAL METHODS. For students of Agriculture and Business Administration. Prerequisite, valculus. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. First Floor, Widtsoe Hall.

Gardner

GRADUATE COURSES

209, 210, 211. THEORETICAL MECHANICS. Prerequisite, calculus. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 9:00. First Floor, Widtsoe Hall.

Gardner

212, 213, 214. HYDRODYNAMICS. Prerequisite, calculus. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. First Floor, Widtsoe Hall.

Gardner

215, 216, 217. MATHEMATICAL THEORY OF ELECTRICITY AND MAGNETISM. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. First Floor, Widtsoe Hall.

Edlefsen

225. SEMINAR. Fall, Winter and Spring quarters. Two credits each quarter.

T. Th. 11:00. First Floor, Widtsoe Hall.

West

PHYSIOLOGY

JOSEPH E. GREAVES, *Professor.*
R. L. HILL, *Professor.*

JUNIOR COLLEGE COURSES

1. ANATOMY AND PHYSIOLOGY. A study of the structure and functions of the human body.

Sec. 1. Fall and Winter quarters. Three credits. T. Th. S. 9:00. Third Floor, Widtsoe Hall.

Hill

Sec. 2. Spring quarter. Five credits. Daily, except Saturday 8:00. Third Floor Widtsoe Hall.

Hill

2. LABORATORY WORK IN ANATOMY AND PHYSIOLOGY.

Sec. 1. Fall quarter. One credit.

(Not given 1924-25.)

Sec. 2. Spring quarter. One credit.

(Not given 1924-25.)

3. PERSONAL HEALTH. A study of the principles underlying the health and well-being of the individual. Prerequisite, Physiology 1. Spring quarter. Two credits.

T. S. 10:00. Third Floor, Widtsoe Hall.

Greaves

SENIOR COLLEGE COURSES

102. PHYSIOLOGY. An advanced course in special phases of physiology. Special emphasis will be placed upon the structure and function of the nervous system. Three credits.

(Not given 1924-25.)

112, 113, 114. PHYSIOLOGY. A study of the chemical transformation going on in the animal. Fall, Winter and Spring quarters. Prerequisites, Bacteriology 111. Two credits each quarter.

T. Th. 11:00. Third Floor, Widtsoe Hall.

Greaves

POLITICAL SCIENCE

F. D. DAINES, *Professor.*
ASA BULLEN, *Judge, Logan City Court.*

JUNIOR COLLEGE COURSES

1. GOVERNMENT OF THE UNITED STATES. The origin and development of the constitution; organization and functions of the various departments. Fall quarter. Three credits.
M. W. F. 9:00.

Daines

2, 3. GOVERNMENTS OF EUROPE. The government and parties of England will occupy the major part of the time of the Winter quarter. Typical governments of the continent—Switzerland, France, Russia and others. Winter and Spring quarters. Three credits each quarter.
M. W. F. 9:00.

Daines

4. MUNICIPAL AND COUNTRY GOVERNMENT. The relationship of the cities and counties in the State and Nation. Special attention will be given to the municipal and county government in Utah.
(Not given in 1924-25.)

Daines

5. STATE GOVERNMENT. The relationship of the States and the Nation in our federal form of government. The government of Utah will receive special attention. Fall quarter. Three credits.
T. Th. S. 9:00.

Daines

6, 7. PROBLEMS OF GOVERNMENT. The problems of government seen in their origins and development. Forms, functions and attributes of government, and the role of political parties and

of the electorate. Prerequisite, Political Science 1, 2, 3, or General Economics, or European History. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 9:00.

Daines

11, 12, 13. COMMERCIAL LAW. The law of contracts, agency, negotiable paper, banks and banking, guaranty and suretyship. A comprehensive study of the principles of law underlying each of the above subjects. Open to all students of sophomore standing or above. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 8:00. Room 352 Main.

Bullen

SENIOR COLLEGE COURSES

101, 102, 103. INTERNATIONAL RELATIONS. Psychological economic, racial and other obstacles to international co-operation. International organizations established prior to the World War. The Treaty of Versailles; the League of Nations; and present day world politics. Prerequisite, Political Science 1, 2, 3 or an equivalent. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 11:00.

Daines

104, 105. COMMERCIAL LAW. The law of bailments, sales of personal property, partnerships, corporations, and bankruptcy. Prerequisite: Political Science 11, 12 and 13. Fall and Winter quarters. Three credits each quarter.

(Not given in 1924-25.)

Daines

106, 107. COMMERCIAL LAW. Commercial law. The law of property, real and personal, including deeds, conveyancing and abstracts of title, mortgages, wills and estates. The law of in-

surance, and debtor and creditor. Prerequisite, Political Science 11, 12 and 13. Fall and Winter quarters. Three credits each quarter.

T. Th. S. 8:00. Room 352 Main.

Bullen

108. THE LAW OF BUSINESS PROBLEMS. A study of the legal aspect of business. Prerequisite, Political Science 11, 12 and 13, and Political Science 104, 105, or 106, 107. Spring quarter. Three credits.

T. Th. S. 8:00. Room 352 Main.

Bullen

109, 110. IRRIGATION INSTITUTIONS. (Given by the Departments of Irrigation and Drainage and Political Science, jointly.) Water right doctrines, laws governing the adjudication and acquirement of water rights and the distribution of water; the organization of irrigation enterprises. Prerequisite or parallel, a general course in Economics or Sociology. Winter and Spring quarters. Three credits each quarter.

T. Th. S. 8:00. Winter Quarter. Room 304 Ag. Eng.

Clyde

T. Th. S. 8:00. Spring quarter. Room 352 Main. *Bullen.* (Spring quarter not given 1924-25.)

113,114, 115. MUNICIPAL GOVERNMENT AND ADMINISTRATION. The government and problems of cities with special reference to American experience. Organization, personnel, and practices which have developed in the performance of the various business functions of city government. Prerequisites, Political Science 1, 2, 3 or an equivalent. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 10:00.

Daines

116. THEORY OF THE STATE. The nature of the State, its organization and activities, and its relation to individuals and

to other states. Prerequisites, Political Science 1, 2, 3, or an equivalent. Fall quarter. Three credits each quarter.

M. W. F. 8:00.

Daines

117. American Political Ideas. Fundamental theories underlying American political institutions and governmental policies. Prerequisite, Political Science 1, 2, 3 or an equivalent. Winter quarter. Three credits.

M. W. F. 8:00.

Daines

118. Political Parties. Their function in government; their organization and methods Prerequisite, Political Science 1, 2, 3, or an equivalent. Spring quarter. Three credits.

M. W. F. 8:00.

Daines

121, 122, 123. Introduction To International Law. Rules regulating international intercourse, considered from a nontechnical point of view. Emphasis upon America's contribution, and stand on disputed questions. Prerequisite, Political Science 1, 2, 3, or an equivalent. Fall, Winter and Spring quarters. Three credits each quarter.

(Not given in 1924-25.)

Daines

PUBLIC SPEAKING

Iva Maud Dunn, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1, 2, 3. Vocal Interpretation. The vocal interpretation of the printed page. The aim of the course is to develop the ability to appreciate, intellectually and emotionally, any good literature and to interpret it so that others will appreciate it. Fall, Winter and Spring quarters. Three credits each quarter.

T. Th. S. 11:00. Room 359 Main. *Dunn*

4, 5, 6. EXTEMPORANEOUS SPEAKING. Practice in extemporaneous speaking with a definite study of those principles which make speech effective. Class limited to twenty-five. Fall, Winter and Spring quarters. Three credits each quarter.

Section 1. M. W. F. 9:00. Room 359 Main.

Section 2. M. W. F. 11:00. Room 359 Main.

Dunn

SENIOR COLLEGE COURSES

101, 102, 103. PUBLIC SPEAKING. A study of the principles of effective speaking in the preparation and delivery of speeches adapted to various audiences. Prerequisites, Public Speaking 4, 5, 6. Fall, Winter and Spring quarters. Two credits each quarter.

T. S. 10:00. Room 359 Main.

Dunn

104. INTERPRETATION OF POETRY. Oral interpretation of poetry. Ballads, lyrics and epic forms will be studied with special emphasis upon the significance of rhythm. Prerequisite, Public Speaking 1, 2, 3. Fall quarter. Three credits.

M. W. F. 8:00. Room 359 Main.

Dunn

105. INTERPRETATION OF SHAKESPEARE. A study of the dramatic reading of Shakespeare. Great scenes will be chosen from different plays and at least one play will be read in its entirety. Prerequisite, Public Speaking 1, 2, 3. Winter quarter. Three credits.

M. W. F. 8:00. Room 359 Main. *Dunn*

106. DRAMATIC INTERPRETATION. A laboratory course in drama. Plays will be studied from the interpretative side. The class will vocally interpret scenes and plays assigned. Some work will be presented in public. Prerequisite, Public Speaking 1, 2, 3. Spring quarter. Three credits.

M. W. F. 8:00. Room 359 Main. *Dunn*

RANGE MANAGEMENT

R. J. BECRAFT, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1. RANGE MANAGEMENT. A general course including history, forage plants, poisonous plants, range improvement, reconnaissance. Prerequisite, Botany 1 or 21, 22, 23. Spring quarter. Four credits.

Lec. M. W. F. 8:00. Lab. M. 2:00 to 5:00. Room 305 Livestock.

Becraft

31. LIVESTOCK MANAGEMENT ON RANGES. Methods of handling sheep and cattle on range lands. Winter quarter. Three credits.

Lec. M. W. F. 8:00. Room 305 Livestock.

Becraft

51. GENERAL FORESTRY. A brief survey of forestry practice—forest regions, timber species, management, protection, local problems. Prerequisite, Botany 1 or 21, 22, 23. Winter quarter. Four credits.

Lec. M. W. F. 11:00. Lab. M. 2:00 to 5:00. Room 305 Livestock.

Becraft

SENIOR COLLEGE COURSES

101. ADVANCED RANGE MANAGEMENT. A more detailed study of revegetation, seasonal use, forage maintenance, and grazing working plans. Prerequisites, Range Management 1, 31, 51. Winter quarter. Three credits.

Lec. M. W. F. 10:00. Room 305 Livestock.

Becraft

111. RANGE FORAGE PLANTS. Identification, distribution, and economic value of important range plants, including poison-

ous species. Prerequisites, Range Management 1, and Botany 101. Spring quarter. Four credits.

Lec. M. W. F. 10:00. Lab. W. 2:00 to 5:00. Room 305 Livestock.

Becraft

121. RESEARCH. For students specializing in Range Management. Time and credit to be arranged.

Becraft

RURAL PUBLIC HEALTH

J. E. GREAVES, *Professor.*
*H. J. FREDERICK, *Professor.*
W. B. PRESTON, M. D., *Associate Professor.*
EZRA G. CARTER, *Assistant Professor.*
CHARLOTTE DANCY, *Assistant Professor.*
C. W. REES, *Assistant Professor.*

Students who wish to specialize in Public Health work will be required to present for graduation 24 hours credit to be selected from this group of subjects. They must include Rural Public Health 101 (Public Health and Preventive Medicine) in addition to the fulfilling of all other requirements.

JUNIOR COLLEGE COURSES

1. FIRST AID. Treatment of emergencies and accidents. Two sections. Winter quarter. Two credits.

Hours to be arranged.

Preston

2. HOME HEALTH AND NURSING. Special emphasis on the prevention of disease and on the building up of the highest degree of health. Treatment of functional disturbances, injuries,

*Absent on leave.

wounds, etc., receives due attention. Lectures, discussions and laboratory demonstrations. Reading of reference works, and special reports are required. Winter and Spring quarters. Three credits each quarter.

Lec. M. W. 8:00. Room 12 H. E. Lab. F. 2:00 to 3:00. Room 11 H. E.

Dancy

PATHOGENIC BACTERIOLOGY. (See Bacteriology 3.)

ANATOMY AND PHYSIOLOGY. (See Physiology 1.)

Carter

SENIOR COLLEGE COURSES

101. PUBLIC HEALTH AND PREVENTIVE MEDICINE. Lecture, demonstration and clinic course. Cases will be shown of the various communicable diseases. Emphasis will be placed upon their detection and diagnosis and methods of prevention and eradication. Actual practice under direction of a physician in inspection and health supervision of schools will form a part of this course. Prerequisites, Physiology 2 and Bacteriology 8. One lecture and three hours clinic each week. Fall, Winter and Spring quarters. Hours to be arranged with instructor.

Preston

SANITARY ANALYSIS. (See Bacteriology 106.)

Greaves

PUBLIC HEALTH AND HYGIENE. (See Bacteriology 108, 109.)

Greaves

SANITARY STATISTICS. (See Bacteriology 110.)
(Not given 1924-25.)

PARASITOLOGY. (See Zoology 106.)

Hawley

ADVANCED PHYSIOLOGY. (See Physiology 102.)
(Not given 1924-25.)

Greaves

EUGENICS. (See Zoology 112.)

Rees

DAIRY BACTERIOLOGY. (Lecture.) (See Bacteriology 104.)

DAIRY BACTERIOLOGY. (Laboratory.) (See Bacteriology 105.)

PHYSIOLOGY. (See Physiology 112, 113, 114.)

Greaves

SANITARY INSPECTION. (See Veterinary Science 120.) (Not given 1924-25.)

Frederick

SOCIOLOGY

M. H. HARRIS, *Professor.*

JUNIOR COLLEGE COURSE

80. EDUCATIONAL SOCIOLOGY. By utilizing series of practical problems it is aimed to prepare the public school teacher for widened usefulness in the school and community. Fall quarter. Three credits. T. Th. S. 8:00. Room 361 Main.

Harris

SENIOR COLLEGE COURSES

101. RURAL SOCIOLOGY. A study of forces and conditions of rural life as a basis for constructive action in developing and maintaining a scientifically efficient and wholesome civilization in the country will be made. It is aimed to train leaders so that the country can be made a desirable place in which to live as well as a place in which to make a living. Fall quarter. Three credits. T. Th. S. 9:00. Room 361 Main.

Harris

150. PRINCIPLES OF SOCIOLOGY. The foundations of sociology will be studied in order that a plan of social progress may be formulated. The problems of social origins, social structure, public opinion, social activities, social organization and social evolution will be carefully considered. Winter quarter. Three credits.

T. Th. S. 9:00. Room 361 Main.

Harris

160. APPLIED SOCIOLOGY. Social problems and social policy. An analysis of the causes, extent, treatment and prevention of poverty, defectiveness, vice, and crime will be made. In connection with this course it is planned to visit the state industrial school, penitentiary, insane asylum, etc. Prerequisite, Sociology 150. Spring quarter. Three credits.

T. Th. S. 9:00. Room 361 Main. *Harris*

For closely related course see: Science of Education (Education 114) *Oberhansley.*

STENOGRAPHY AND TYPEWRITING

P. E. PETERSON, *Professor.*
THELMA FOGELBERG, *Instructor.*

STENOGRAPHY

JUNIOR COLLEGE COURSES

1, 2, 3. ELEMENTARY STENOGRAPHY. Thorough drill in the fundamental rules of the Isaac Pitman system of shorthand. Fall, Winter and Spring quarters. Four credits each quarter.

Daily, except Th. and S. 8:00. Room 305 Main.

Fogelberg

4, 5. ELEMENTARY STENOGRAPHY. Thorough drill in the fundamental rules of the Gregg system of shorthand. Winter and Spring quarters. Five credits each quarter.

Daily, except S. 3:00. Room 305 Main.

6, 7, 8. ADVANCED STENOGRAPHY. Thorough review of the principles and drill in the attainment of speed. Open to both Greg and Pitman students. Fall, Winter and Spring quarters. Four credits each quarter.

Daily, except Th. and S. 11:00. Room 305 Main.

Fogelberg

SENIOR COLLEGE COURSES

101. ADVANCED THEORY AND METHODS. This course aims to prepare teachers as well as to furnish the advanced practice which is essential to those intending to enter the profession of stenography. This course will not be given unless six or more students apply. Fall, Winter and Spring quarters. Three credits.

Time to be arranged with instructor.

Fogelberg

TYPEWRITING

Students must consult with the instructor in order to arrange for sections.

1, 2, 3. BEGINNING COURSE. Correct fingering and proper manipulation of the machine. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

Students are required to register in two sections and only two and are required to register so that they can have practice five days a week.

Sec. 1 M. W. F. 8:00.
Sec. 2. M. W. F. 9:00.
Sec. 3. M. W. F. 10:00.
Sec. 4. M. W. F. 11:00.
Sec. 5. M. W. F. 2:00.
Sec. 6. T. Th. 8:00.
Sec. 7. T. Th. 9:00.
Sec. 8. T. Th. 1:00.
Sec. 9. T. Th. 2:00.

Fogelberg

4, 5, 6. SECOND YEAR COURSE. Daily exercises in which accuracy and speed are attained. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

Students are required to register in two sections and only two and are required to register so that they can have practice five days a week.

Sec. 1. M. W. F. 8:00.
Sec. 2. M. W. F. 9:00.
Sec. 3. M. W. F. 10:00.
Sec. 4. M. W. F. 11:00.
Sec. 5. M. W. F. 2:00.
Sec. 6. T. Th. 8:00.
Sec. 7. T. Th. 9:00.
Sec. 8. T. Th. 1:00.
Sec. 9. T. Th. 2:00.

Fogelberg

7, 8, 9. ADVANCED TYPEWRITING. Advanced speed work and intensive drill in tabulation. Fall, Winter and Spring quarters. One credit each quarter. Room 303 Main.

Students are required to register in two sections and only two and are required to register so that they can have practice five days a week.

Sec. 1. M. W. F. 8:00.
Sec. 2. M. W. F. 9:00.
Sec. 3. M. W. F. 10:00.
Sec. 4. M. W. F. 11:00.
Sec. 5. M. W. F. 2:00.
Sec. 6. T. Th. 8:00.
Sec. 7. T. Th. 9:00.
Sec. 8. T. Th. 1:00.
Sec. 9. T. Th. 2:00.

Fogelberg

TEXTILES AND CLOTHING (See Page 248)

VETERINARY SCIENCE

*H. J. FREDERICK, *Professor.*

(No courses will be offered in this department in 1924-25.)

JUNIOR COLLEGE COURSES

10. VETERINARY ELEMENTS. Introduction to anatomy and physiology and the common ailments of domestic animals; the most prevalent diseases their distribution, causes, symptoms, course, diagnosis and treatment; observation and practice in the free weekly clinics. Fall or Winter quarter. Four credits. Room 203 Livestock.

Lec. T. Th. S. 8:00. Clinic W. or Th. 2:00 to 5:00. Fall quarter.

Lec. M. W. F. 10:00. Clinic W. or Th. 2:00 to 5:00. Winter quarter.

Frederick

20, 21, 22. COMPARATIVE ANATOMY. Especially for students in agriculture and animal husbandry; also students wishing to follow veterinary science. This course is supplemented with practical work in dissection and illustrated by skeletons and models. Fall, Winter and Spring quarters. Three credits each quarter.

Given if 10 students apply.

30, 31. OBSTETRICS. Obstetrical anatomy, reproduction, hygiene of pregnant animals. Obstetric operations, accidents of parturition and diseases of the new-born. The college herd and the surrounding stock breeding community give ample opportunity for practical work. Winter and Spring quarters. Two credits each quarter.

T. S. 11:00. Room 203 Livestock. *Frederick*

40, 41, 42. PHYSIOLOGY. The vital functions of the different species of domestic animals and those of the human body

*Absent on leave.

are compared; the physical and chemical laws as related to physiology; the general properties of animal cells, their origin, development and growth; special physiology of the various organs and tissues of the animal body. Given if ten students register. Fall, Winter and Spring quarters. Three credits each quarter.

M. W. F. 9:00. Room 203 Livestock.

Frederick

50, 51, 52. CLINICS. Free clinics at the hospital in which students of veterinary science must assist. The numerous cases represent all diseases common to this locality and furnish the clinic with abundant material for observation and practice. Hourse and credits to be arranged. Fall, Winter and Spring quarters.

Clinic W. or Th. 2:00 to 5:00. Veterinary Hospital.

Frederick

60. PRINCIPLES OF HORSE SHOEING. The anatomy and physiology of the horse's foot; the form of the foot and the direction of the limb; variations in the light of the foot, styles of going, shoeing of normal and irregular feet; winter shoeing; correction of defects in gait and methods of shoeing hoofs defective in form or disease. Winter quarter; repeated Spring quarter. Three credits.

T. Th. S. 9:00. Room 203 Livestock.

Frederick

SENIOR COLLEGE COURSES

107. HYGIENE AND INFECTIOUS DISEASES. A discussion of water and food supply disinfection, care and management of animals and feeding of sick animals. The common infectious diseases prevalent here. Methods which should be adopted in their control and eradication. Tests aplied for diagnosis, vaccination and serum treatment of animals. Winter or Spring quarter. Four credits. Room 203 Livestock.

Lec. T. Th. S. 8:00. Clinic 2:00 to 5:00. Winter quarter.
Lec. M. W. F. 10:00. Clinic 2:00 to 5:00. Spring quarter.
Frederick

118, 119. ANATOMY AND PHYSIOLOGY. A study of the form, structure and functions of the animal body. Attention is given to all domestic animals and students are required to locate and point out the parts related to the form, movement and utility of the animal. Fall and Winter quarters. Three credits each quarter.

Lec. T. S. 10:00. Clinic W. or Th. 2:00 to 5:00. Room 203 Livestock. *Frederick*

120. SANITARY INSPECTION. Inspection of slaughter houses, packing houses, butcher shops, etc., and means of detection of communicable diseases and spoilage in meat products. Prerequisite, Bacteriology 2. One quarter. Three credits.

Hours to be arranged.

Frederick

ZOOLOGY

I. M. HAWLEY, *Professor.*
*H. J. PACK, *Assistant Professor.*
C. W. REES, *Assistant Professor.*

See Department of Entomology for related work.

JUNIOR COLLEGE COURSES

1, 2. ELEMENTARY GENERAL ZOOLOGY. A study of morphology, physiology, differentiation, adaption, heredity and other zoological principles. A brief survey of the animal kingdom is undertaken to illustrate the application of the foregoing principles in the various groups. Special emphasis is placed on man's relationship to the rest of the animal world. This course is intended for those who have not studied zoology before and who desire only a general view of the subject. It is recommended

*Absent on leave.

for all students except those in Agriculture and General Science who desire a more comprehensive course. Sec. 1. Fall and Winter quarters; Sec. 2. Winter and Spring quarters. Three credits each quarter.

Sec. 1. Lec. T. Th. 8:00. Lab. T. or F. 2:00 to 5:00.
Sec. 2. Lec. T. Th. 1:00. Lab. Th. or F. 2:00 to 5:00.

Hawley and Rees

3, 4, 5. GENERAL ZOOLOGY. A systematic study of the animal kingdom, its general classification and the relationship of the various groups of animals to each other. This is followed in the Winter quarter by a study of the comparative anatomy of the vertebrates and in the Spring quarter by elementary embryology. Special emphasis is placed on the chick. The above courses are well adapted for premedical students, as well as those in the Schools of Basic Arts and Science and Agriculture. Fall, Winter and Spring quarters. Five credits each quarter. T. Th. S. 9:00. Lab. M. W. 2:00 to 5:00.

Rees

SENIOR COLLEGE COURSES

101, 102. ADVANCED ZOOLOGY. The classification, morphology and comparative anatomy of the vertebrates. Prerequisite, Zoology 1, 2, or 3, 4. Fall and Winter quarters. Five credits each quarter.

Hours to be arranged. *Rees*

106. PARASITOLOGY. The classification, morphology and life history of human parasites. The disease-producing protozans, flukes, tapeworms and roundworms receive special study. Arthropods as external parasites and carriers of pathogenic organisms receive attention. This course should be taken by all premedical students. Fall quarter. Four credits.

Lec. T. Th. S. 10:00. Lab. Th. 2:00 to 5:00. *Hawley*

111. GENETICS. The biological principles of life and the inheritance of characters. A study of the germ cells with refer-

ence to heredity. The questions of variation, mutations, the inheritance of acquired characters, pure lines, Mendelism, sex-determination, and genetic principles generally are the main subjects of discussion.. Prerequisites, Zoology 1, 2 or 3, 4. Fall quarter. Four credits.

M. W. F. S. 11:00.

Rees

112. EUGENICS. The principles of genetics as applied to the human race. Attention is given the historical development of and needs for eugenics, the inheritance of physical, mental and moral traits; human crosses, consanguineous marriages, eugenic procedure, and other principles which influence the inate qualities of human beings.

Prerequisites, Zoology 111. Winter quarter. Four credits.

M. W. F. S. 11:00. *Rees*

121, 122, 123. HISTOLOGY AND EMBRYOLOGY. General courses of histology and embryology, with special reference to man. Fall quarter, lectures and laboratory work in the principles of technic and a study of epithelial tissue. Winter quarter completes work in histology and continues with a treatment of the germ cells, their maturation and fertilization. Spring quarter, comparative study of the embryological development of amphioxus, frog, chick and man. Prerequisite, General Zoology. Fall Winter and Spring quarters. Four credits each quarter.

Hours to be arranged.

Rees

GRADUATE COURSE

201. RESEARCH. The student who wishes to engage in some line of original research and is qualified to do so may elect and study some topic from eugenics, ecology, morphology or other branch of zoology. Open to undergraduate students only by special arrangement with the department. Thesis required.

Hours to be arranged. *Hawley and Rees*

School of Agricultural Engineering

AGRICULTURAL ENGINEERING

AGRICULTURAL SURVEYING

RAY B. WEST, *Professor.*
EDMUND FELDMAN, *Associate Professor.*
GEORGE DEWEY CLYDE, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1. FARM SURVEYING. For students of agriculture. Practice in the handling of surveying instruments that may be purchased by the average farmer. Running of ditch lines, grading and leveling of land, retracting of section lines, and laying out drains and buildings. Spring quarter. Three credits. Room 203 Ag Eng.
Lec. F. 11:00. Lab. T. Th. 2:00 to 5:00.

Feldman

2. SURVEYING FOR AGRICULTURAL ENGINEERS. This is a more thorough course than Surveying 1, and covers, in addition to the above, a study of the instruments used by engineers. Fall quarter. Three credits. Room 203 Ag. Eng.
Lec. T. 1:00. Lab. M. W. 2:00 to 5:00. *Feldman*

3. SURVEYING FOR ENGINEERS. Topographical surveying, hydrographic surveying and some rural and city surveying. Prerequisite, Trigonometry. Spring quarter. Three credits. Room 203 Ag. Eng.
Lec. T. 1:00. Lab. M. W. 2:00 to 5:00.

Feldman

4. MAPPING. Practice in the mapping of the various kinds of surveys that may be encountered by the Agricultural engineers. Winter quarter. Three credits. Room 307 Ag. Eng. (See Mechanical Drawing 31.)
Lab. M. T. Th. 2:00 to 5:00.

Feldman

SENIOR COLLEGE COURSES

101. Soil and Other Agricultural Surveys. The methods of preparing maps of a given agricultural area and surveys of the agricultural interests within the area. Fall quarter. Three credits. Prerequisite, Surveying 1. Open to junior college students. Room 203 Ag. Eng.

Hours to be arranged.

West

102. Canal and Road Surveying. Instructions and practice in the application of surveying methods used in the layout and construction of canals and roads. Prerequisite, Surveying 2 and 3. Spring quarter. Five credits. Room 203 Ag. Eng. May be used as a major in Highways.

Lec. T. Th. S. 8:00. Lab. M. W. 2:00 to 5:00.

West

APPLIED MECHANICS AND DESIGN

Ray B. West, *Professor.*
Willard Gardner, *Associate Professor.*
Edmund Feldman, *Associate Professor.*
George Dewey Clyde, *Assistant Professor.*

JUNIOR COLLEGE COURSES

1. Materials of Engineering. The chemistry of steel, the alloys, etc., and their special use in machine parts, strength, composition and proper use of the woods, plaster, glass, glue, paints, cement, brick, etc., in building. Spring quarter. Three credits.

T. F. S. 10:00. Room 203 Ag. Eng.

West

2. Plain Concrete. Cement, sand, stone. Mechanical analysis curves, cement and concrete testing. Fall quarter. Two credits. Concrete Lab. Ag. Eng.

Lab. T. Th. 2:00 to 5:00.

Feldman

SENIOR COLLEGE COURSES

101. THEORETICAL MECHANICS. Statics and Kinetics, resultant of forces, equilibrium of force systems, friction; moments, and moments of inertia, force, mass and acceleration; work and energy; impulse and momentum. Fall quarter. Five credits.

Lec. M. T. W. Th. F. 8:00.

Gardner

102, 103. APPLIED MECHANICS AND STRENGTH OF MATERIALS. The simple machines, reactions, moments and shears. The design of beams and columns. Winter and Spring quarters. Three credits per quarter. Room 203 Ag. Eng.

Lec. M. W. F. 8:00.

Feldman and Clyde

106. REINFORCED CONCRETE. The fundamental principles of reinforced concrete design. Slabs, beams, girders and columns. Winter quarter. Five credits. Prerequisite. Mech. 101, 102, 103. Room 305 Ag. Eng.

Lec. M. W. F. 10:00. Lab. T. Th. 2:00 to 5:00.

Feldman

107. MASONRY CONSTRUCTION. A continuation of course 106 with special application to foundations, bridges, retaining walls, drains and irrigation structures. Spring quarter. Three credits. Room 307 Ag. Eng.

Lab. T. Th. S. 9:00 to 12:00.

Feldman

110. GRAPHIC STATICS. The graphical analysis of stresses in framed structures. Fall quarter. Three credits. Prerequisites, Mechanics 101, 102 and 103. Room 307 Ag. Eng.

Lab. T. Th. S. 8:00 to 11:00.

Feldman

111. BRIDGE ANALYSIS. The algebraic and graphical analysis of stress in the modern types of highway bridge trusses. Special

attention is given to influence, lines and equivalent uniform loads. Winter quarter. Three credits. Prerequisite, Graphic Statics 110. Room 307 Ag. Eng.

Lab. T. Th. S. 8:00 to 11:00. *Feldman*

112. BRIDGE DESIGN. The design of the modern types of highway bridges and culverts in wood, steel and concrete. Spring quarter. Three credits. Prerequisites, Bridge Analysis 111. Room 307 Ag. Eng.

Lab. M. W. F. 9:00 to 12:00. *Feldman*

GRADUATE COURSES

201. INDETERMINATE STRUCTURES. The nature of the problem. The elastic theory; method of least work; moment area method and method of elastic weights. Three credits. Room 306 Ag. Eng.

Hours to be arranged. *Feldman*

202. INDETERMINATE STRUCTURES. The application of Applied Mechanics and Design 201 to the solution of problems in steel and concrete. Box culverts, continuous span concrete slab highway bridges, swing bridges and other problems. Three credits. Room 306 Ag. Eng.

Hours to be arranged.

Feldman

HIGHWAY ENGINEERING

RAY B. WEST, *Professor.*
WM. PETERSON, *Professor.*
EDMUND FELDMAN, *Associate Professor.*

1. HIGHWAY CONSTRUCTION. Location, grade, drainage, resistance to traction, road materials, construction methods and costs. Fall quarter. Five credits. Room 203 Ag. Eng.

Daily except Thursday at 11:00.

West

2. ROAD MATERIALS. Dynamical and structural geology as it applies to construction. Special attention is given to materials affecting highway construction, dams, excavations. Winter quarter. Five credits. Room 283 Main.

Daily, except Thursday at 11:00.

Peterson

4. INSPECTION OF HIGHWAY CONSTRUCTION. A study of the road inspectors duties on all types of roads, pavements and bridges. Winter quarter. Three credits. Room 203 Ag. Eng.

T. Th. S. 9:00.

West

5. HIGHWAY STRUCTURES AND DESIGN. The design of manholes, catch basins, fences and guard rail details, road and pavement cross-sections etc. Any quarter. Two credits. (See Engineering Drawing 14.) Room 203 Ag. Eng. Hours to be arranged.

Feldman

6. CONTRACTS AND SPECIFICATIONS. The form and essential considerations in drawing up Engineering Contracts and Specifications. Fall quarter. Three credits. Room 203 Ag. Eng.

Lec. M. W. F. 9:00.

West

SENIOR COLLEGE COURSES

101. ROAD MAINTENANCE. Road organizations, employment of labor, cost of maintenance, width of tires, size of wheels, maintaining drainage, repairing worn surfaces, comparison of different road machines, etc. Spring quarter. Three credits. Room 283 Main.

M. W. F. 9:00.

Peterson

102. HIGHWAY ADMINISTRATION AND DESIGN. State, County and City highway departments, highway and local improvement laws, traffic regulations, taxation and method of financing

county roads and city pavements. Economic design and reconstruction. Winter quarter. Three credits. Room 203 Ag. Eng. Lec. M. W. F. 8:00.

West

104, 105, 106. SEMINAR. One credit per quarter. Room 205 Ag. Eng. Fall quarter M. 2:00 to 5:00. Winter quarter F. 2:00 to 5:00. Spring quarter T. 2:00 to 5:00.

West

107. TRANSPORTATION. Development of highway transportation. Comparison of methods of transport of passengers and commodities by highway, railway and waterway. Organization and operation of Rural motor express lines, freight lines and bus lines, etc. Hours and credit to be arranged.

West

RURAL ARCHITECTURE

RAY B. WEST, *Professor.*
CALVIN FLETCHER, *Professor.*
EDMUND FELDMAN, *Associate Professor.*

JUNIOR COLLEGE COURSES

1. FARM STRUCTURES. The arrangement, design and construction of barns, stables, poultry houses, silos and other farm structures. Prerequisite, Mechanical Drawing 1 or 2. Winter quarter. Three credits. Room 203 Ag. Eng.
Lec. M. W. F. 11:00.

West and Feldman

2. POULTRY HOUSE DESIGN. The plans and layout of the various types of structures used in Poultry Husbandry, complete layout of poultry ranch. Prerequisite, Rural Architecture 1, or Mechanical Drawing 1 and 2. Three credits. (See Mechanical Drawing 4.) Room 307 Ag. Eng.
T. Th. S. 9:00 to 12:00.

Feldman

3. Barn and Stable Design. Various types of barns and stables. Layouts and construction. Prerequisite, Rural Architecture 1, or Mechanical Drawing 1 and 2. Three credits. (See Mechanical Drawing 5.) Room 307 Ag. Eng.

Feldman

4. Concrete Construction For Agricultural Purposes. Various mixtures of cement and their uses; the use of concrete in making of barns, water troughs, posts, etc. Spring quarter. Three credits.

Hours to be arranged.

5. Planning of Farm Structures and Homes. The making of plans for farm buildings, including complete specifications, costs of materials and construction. Winter quarter.

Hours to be arranged. *West*

6. Hours Building and Contracting. Various methods of construction; the frame, two brick, three brick, stucco, single cement block and stuccoed hollow tile, cost and economy of each; interior finishing. Winter quarter. Five credits. Room 203 Ag. Eng.

Daily, except Saturday 10:00.

West

SENIOR COLLEGE COURSES

101. Rural Architecture. Architectural composition, study of the principles of composition as applied to building, emphasis being placed on correction of common errors in the design of elevations. For related work see Art 24 and Horticulture 8. Open to junior college students. Ten studio hours. Fall quarter. Three credits. Art Studio, Main.

Hours to be arranged.

Fletcher

102. Architectural Composition. Continuation of course 101 with special attention to the relation of all the parts of the

exterior and architectural effect in environment. For related work see Horticulture 9. Prerequisite, Rural Architecture 101. Open to junior college students. Ten studio hours. Winter quarter. Three credits. Art Studio, Main.

Hours to be arranged.

Fletcher

103. STYLES IN ARCHITECTURE. Study of the great styles or periods of architecture with special attention to those phases most vital to an understanding of modern buldings. Open to junior college students. Ten studio hours. Spring quarter. Three credits. Art Studios, Main.

Hours to be arranged.

Fletcher

RURAL SANITATION

J. E. GREAVES, *Professor.*
RAY B. WEST, *Professor.*
IRA M. HAWLEY, *Professor.*
EZRA G. CARTER, *Assistant Professor.*

SENIOR COLLEGE COURSES

106. WATER SUPPLY AND WASTE DISPOSAL. Methods of (a) supplying cities, farm and rural communities with sanitary water; (b) handling waste of the city, farm and small town. Fall quarter. Three credits.

T. Th. S. 9:00.

West

PARASITOLOGY. (See Zoology 106.)

Hawley

SANITATION. Special attention will be paid to school sanitation. (See Bacteriology 108, 109.)

Greaves

SANITARY ANALYSIS. (See Bacteriology 106.)

Greaves

DAIRY BACTERIOLOGY. Lecture (See Bacteriology 104.)

DAIRY BACTERIOLOGY. ..*Laboratory.* (See Bacteriology 105.)

SANITARY STATISTICS. (See Bacteriology 110.)

IRRIGATION AND DRAINAGE

O. W. ISRAELSEN, *Professor*
DEWEY CLYDE, *Assistant Professor.*
ASA BULLEN, *Judge, Logan City Court.*

Students who major in Irrigation and Drainage will be required to complete all of the Junior College and Senior College courses or their equivalents and to present a thesis concerning some special problem to be assigned by the Department, as announced in Courses 110 and 111.

They will also be required to spend at least one summer of 12 weeks in doing some kind of practical work in irrigation or drainage, for which they may receive remuneration; such work to be approved by the Head of the Department.

JUNIOR COLLEGE COURSES

1. IRRIGATION AND DRAINAGE PRACTICE. Water measurement, effect of soil and plant on time and frequency of irrigation, duty of water, design of farm ditches and preparation of farm drainage. These courses may be used as a major or minor in the Department of Agronomy. Summer quarter designed especially for high school instructors. Sec. 1. Fall quarter for students in Agricultural Engineering. Sec. 2. Spring quarter for students in Agriculture. Five credits. Room 304 Ag. Eng. Lec. M. W. F. 11:00. Sec. 1. Lab. M. W. 2:00 to 5:00. Sec. 2. Lab. M. Th. 2:00 to 5:00. *Clyde*

2, 3. HYDRAULICS. Laws of liquids in motion and at rest, flow in natural and artificial channels and elementary principles of water power development. Winter and Spring quarters. Three credits each quarter.

Lec. M. W. 9:00. Winter quarter. Lab. F. 2:00 to 5:00. Room 304 Ag. Eng.

Lec. M. W. 11:00. Spring quarter. Lab. F. 2:00 to 5:00. Room 304 Ag. Eng.

Clyde

SENIOR COLLEGE COURSES

103. DESIGN OF DRAINAGE SYSTEMS. Preliminary survey, location of drains, flows in drains and in open channels and construction of drainage systems with special reference to the drainage of irrigated lands. Prerequisites, Irrigation 2 and 3. Spring quarter. Five credits. Room 304 Ag. Eng.

Lec. M. W. F. 10:00. Lab. S. 8:00 to 12:00.

Clyde

104, 105. DESIGN FOR IRRIGATION SYSTEMS. Sources of water supply, diversion works, canal alignment and cross section, flumes, drops and spillways. Prerequisites, Irrigation 2 and 3 and Mechanics 101, 102. Fall quarter and Winter quarter. Five credits each quarter. Room 304 Ag. Eng.

Lec. M. W. F. 10:00. Lab. T. Th. 2:00 to 5:00.

Israelsen

107, 108. IRRIGATION INSTITUTIONS. (Given by the Departments of Irrigation and Drainage and Political Science, jointly.) Water right doctrines, laws governing the adjudication and acquirement of water rights and the distribution of water; organization of irrigation enterprises. Prerequisite or parallel; a general course in Economics or Sociology. Winter and Spring quarters. Three credits each quarter.

M. W. F. 10:00. Winter quarter. Room 304 Ag. Eng.

Clyde

T. Th. S. 8:00. Spring quarter. Room 352 Main. (Spring quarter not given in 1924-25.)

Bullen

110, 111. UNDERGRADUATE THESIS AND SEMINAR. Papers and discussions upon problems concerning irrigation or drainage. Required of students who major in Irrigation and Drainage. Fall and Winter quarters. One credit each quarter.

Israelsen

GRADUATE COURSES

As a condtiion for enrollment in a graduate course, the student must submit satisfactory evidence of his qualifications for the work proposed to the instructor in charge of the course.

206. MANAGEMENT AND OPERATION OF IRRIGATION SYSTEMS. Delivery of water to irrigators, annual water charges, operation costs. Prerequisites, Design of Irrigation Systems. Winter quarter. Three credits.

Hours to be arranged.

Israelsen

230. HYDROLOGY. The occurrence, utilization and control of water, rainfall, stream flow and runoff, measurements and records, reservoirs, and pumping for irrigation. Open to specially prepared seniors. Winter quarter. Three credits.

Hours to be arranged.

Clyde

298. RESEARCH IN IRRIGATION AND DRAINAGE. Specially prepared undergraduate, or graduate students may elect a problem in irrigation or drainage for investigation, subject to the approval of the professor in charge. Such ingestigations may be conducted at the College or elsewhere. The studies may be used as a basis for a thesis to meet in part the requirements for an advanced degree. Any quarter. Credits and hours to be arranged.

Israelsen

School of Mechanic Arts

FARM AND AUTO MECHANICS

A. H. Powell, *Assistant Professor.*
S. R. Stock, *Instructor.*

Students wishing to graduate in the department of Auto Mechanics may major in Automobiles, Ignition or Tractors. Minor must include 12 hours of machine work and 6 hours of forging. Students specializing in Ignition must elect eighteen hours of the special group in either or both of the departments of Auto Mechanics and Tractors. Students specializing in Auto Mechanics and Tractors must elect eighteen hours of their special group in Ignition.

AUTO MECHANICS

JUNIOR COLLEGE COURSES

Six hours forging and twelve hours machine work is required of all men specializing in Auto Mechanics.

1. Automobile Design and Construction. A course for beginners. This course is a thorough study of the design and contruction and function of the various units and parts of the automobile, with special reference to gas engine principles and the mechanism involved. This course or its equivalent must be taken by all students who wish to specialize in any branch of automobile work. Four credits. Room 205 Mech. Arts.

Sec. 1. Fall quarter M. W. F. 8:00 to 11:00.

Sec. 2. Spring quarter T. Th. S. 8:00 to 11:00.

2. Automotive Design and Construction. A continuation of Auto Mechanics 1. It also deals with the dismounting and the assembling of the automobile. Four credits. Winter quarter. Room 205 Mech. Arts.

M. W. F. 8:00 to 11:00.

3. AUTOMOBILE CARE AND MAINTENANCE. (Special) For Winter students only. This course is designed especially for winter course or short term students who wish to learn enough about the care and operation of the automobile to enable them to make their own minor repairs and adjustments. Oils, lubrication, valve grinding, bearing cutting, fitting of piston rings, etc., will be taken up along with many other problems that the average car owner has to be familiar with if he is going to do his own repairing and properly care for his car. Four credits. Winter quarter. Room 205 Mech. Arts.

T. Th. S. 8:00 to 11:00.

Auto Mechanics 4, 105 and 106 are advanced courses. They must be taken by all students who intend to specialize in garage management, garage practice, teaching or repairing. The courses will cover the detailed theory, operation, advantages in design and contruction of all modern makes of cars, and automobile equipment and appliances. Methods of systematic location of trouble, dismantling, repairing and assembling. Modern shop methods, tools and equipment. Prerequisites, Auto Mechanics 1 and 2 or their equivalents.

4. AUTOMOBILE REPAIR. Four credits. Spring quarter. Room 205 Mech. Arts.

M. W. F. 8:00 to 11:00.

SENIOR COLLEGE COURSES

105. AUTOMOBILE REPAIR. Prerequisites, Auto Mechanics 4. Winter quarter. Four credits. Room 205 Mech. Arts.

M. W. F. 2:00 to 5:00.

106. AUTOMOBILE REPAIR. A continuation of Auto Mechanics 105. Includes shop methods and equipment. Prerequisite, Auto Mechanics 105. Spring quarter. Four credits. Room 205 Mech. Arts.

M. W .F. 2:00 to 5:00.

107. GASOLINE ENGINE CARBURETION AND CARBURETOR. Internal combustion engine fuels and a thorough treatise on the principles of carburetion, the construction of carburetors and their relation to successful gas engines operation. Practice in repairing, overhauling and adjusting of carburetors, thorough study of the modern devices and improvements on new models will be taken up. Prerequisites, Auto Mechanics 4 and Ignition 119. Winter quarter. Three credits. Room 206 Mech. Arts.

T. Th. 2:00 to 5:00.

Stock

FARM MECHANICS

JUNIOR COLLEGE COURSES

9. FARM MOTORS. This course will cover the care, adjustment and lubrication of the automobile, the tractor, the stationary gas engine, and the home lighting and water system, the care of this equipment when not in use, and precautions to be taken when preparing it for operation. It will also include bearings and bearing adjustment, babbiting and fitting of babbited bearings, soldering, the fundamental principles of power transmission by the use of belting and pulleys, care of belts and speed calculations. Fall, Winter and Spring quarter. Four credits.

Lec. T. Th. 1:00 to 2:00. Lab. W. F. 2:00 to 5:00. Room 202 Mech. Arts Building.

Powell

10. FARM MOTORS. A continuation of the above course taking into consideration advanced work on the care and operation of gas engines and other equipment.

Time and credit to be arranged.

Powell

12. FARM SHOP REPAIR WORK. This course is especially arranged for agricultural students. The application of forging operations to repairs on the farm. The repairing of the following farm implements will be included in the course: the plow, wagon,

harrow, hay rake, mowing machine, binder, header, etc., making and tempering punches and coal chisels, sharpening and tempering harrow teeth, picks, etc. Fall or Spring quarter. Two credits.

T. Th. 2:00 to 5:00. Room 107 Mech. Arts.

Egbert

SENIOR COLLEGE COURSE

114. FARM MACHINERY. A complete assembling, adjusting, care and repair of the various types of farm implements and farm machinery. Spring quarter. Four credits.

Lec. T. Th. 1:00 to 2:00. Lab. W. F. 2:00 to 5:00. Room 202 Mech. Arts.

Egbert

IGNITION, STARTING AND LIGHTING

Six hours forging and twelve hours machine work is required of all men specializing in Ignition, Starting and Lighting.

JUNIOR COLLEGE COURSES

15. ELEMENTS OF ELECTRICITY AND MAGNETISM. A complete study of magnets, magnetism and the elementary principles of electricity. It includes a study of the units of electricity, their governing laws, power measurements, induction, electro magnets, sizes of wires and their carrying capacity, dry cells and their application to the automotive electrical industry. Required of all students specializing in Ignition, Starting and Lighting. Fall quarter. Four credits. Room 203 Mech. Arts.

T. Th. S. 8:00 to 11:00.

Stock

16. IGNITION, STARTING AND LIGHTING. (Special.) For Winter quarter students only. This course is designed especially for short term students who wish to learn enough about the electrical apparatus of the automobile to enable them to care for and locate electrical troubles and make minor repairs. It will include a

study of spark plugs, high and low tension coils, ignition timing, high and low tension magnetos, battery ignition systems, care and testing of batteries and adjusting the charging rate of generators. Winter quarter. Four credits. Room 203 Mech. Arts.

M. W. F. 2:00 to 5:00.

Stock

17. STORAGE BATTERIES. The aim of this course is to furnish students the experience necessary to enable them to care for and handle a battery service station and repair shop. A thorough study of the different types and makes of batteries will be made. Practice will be given in testing, charging, discharging, disassembling and rebuilding and in the diagnosis of battery troubles. Prerequisite, Ignition 15. Four credits. Room 203 Mech. Arts.

Sec. 1. Fall quarter. M. W. F. 2:00 to 5:00.

Sec. 2. Winter quarter. T. Th. S. 8:00 to 11:00.

Stock

18. HIGH AND LOW TENSION MAGNETOS. A complete study of all low and high tension magnetos as to design, construction and operation. Prerequisite, Ignition 15. Spring quarter. Four credits. Room 203 Mech. Arts.

T. Th. S. 8:00 to 11:00 .

Stock

SENIOR COLLEGE COURSES

110. STORAGE BATTERY REPAIR AND SHOP MANAGEMENT. This course should prepare a student to handle a storage battery service station and repair shop. Considerable practice in the diagnosis of storage battery troubles, rebuilding of batteries, servicing of new batteries and winter storage methods. It will also include business methods and commercial management costs and installation of battery shop equipment. Four credits.

Winter quarter. T. Th. S. 8:00 to 11:00.

Spring quarter. T. Th. 1:00 to 5:00. *Stock*

111. Automotive Electrical Equipment and Shop Management. This course should prepare a student to handle an Automotive Electrical service station and repair shop. Considerable practice in the wiring, trouble shooting and repair of all kinds of electrical equipment. Shop kinks and the development of skill, accuracy and speed to prepare him better to compete with those already in the commercial field will be given. Business methods and commercial management, also costs and proper installation of shop equipment. Prerequisite, Starting and Lighting and Ignition 120. Spring quarter.

M. W. F. 2:00 to 5:00.

Stock

119. Ignition Trouble Work. The systematic location of trouble, service work, adjusting and minor repairs. Fall quarter. Four credits. Room 203 Mech. Arts.

M. W. F. 2:00 to 5:00.

Stock

120. Starting, Lighting and Ignition Systems. A complete study of the modern starting, lighting and ignition systems, their operation, design, and construction; the direct current motor and generator; voltage and current regulation by vibrating relays; third brush; battery cutouts; reading and drawing of wiring diagrams and electrical devices. Ample practice is given in dissembling and assembling, also trouble shooting; testing and adjusting of the various units taken up to enable the student to handle such work in the repair shop. Prerequisite, Ignition 15 and 18. Winter quarter. Four credits. Room 203 Mech. Arts.

M. W. F. 8:00 to 11:00.

Stock

121. Motor and Generator Repair and Armature Winding. A thorough study of direct current starting motors and generators; their construction, operation and repair including armature field and commutator testing; a systematic location and

repair of all troubles encountered in the modern starting motors and generators; armature winding, as far as is practical for modern up-to-date garages and service stations. Prerequisites, Ignition 20, 24 and 24. Spring quarter. Four credits.

M. W. F. 8:00 to 11:00. Room 203 Mech. Arts.

Stock

OXY-ACETYLENE, ELECTRIC ARC AND RESISTANCE WELDING

The following courses in Oxy-Acetylene Welding, Electric Arc, and Resistance Welding will prepare the student to handle the commercial work found in the ordinary welding shops.

JUNIOR COLLEGE COURSES

22. OXY-ACETYLENE. WELDING. The oxy-acteylene welding process, equipment and gasses, properties of the various metals, etc. Practice in the welding of cast iron, steel, aluminum, and other metals is given, also the proper methods of preheating, and the preperation of cylinder clocks and other castings that are to be welded in the latter part of the course. A special fee of $25.00 is required for all students taking the course. Winter quarter. Room 202 Mech. Arts.

Sec. 1. T. Th. S. 8:00 to 11:00. Four credits.

Sec. 2. T. Th. 2:00 to 5:00. Three credits.

Powell

23. OXY-ACETYLENE ELECTRIC ARC AND RESISTANCE WELDING. This course is in part a continuation of the preceding course. In addition, electric arc and resistance welding will be taken up. The work includes an elementary course in metallurgy, the use and aplication of the oxy-acetylene welding flame in the industrial field and advanced work in the welding of cast iron, steel, aluminum, bronze and other metals. A special fee of $25.00 is required of all students taking this course. Spring quarter. Three credits.

T. Th. 2:00 to 5:00. Room 202 Mech. Arts. *Powell*

TRACTOR REPAIR AND OPERATION

JUNIOR COLLEGE COURSES

26. GASOLINE TRACTION ENGINE OPERATION AND REPAIRS. (Special) For Winter quarter students only. Offered for men who wish to qualify to do their own minor repairs, adjustments and operation. Special attention will be given to the methods of tractor overhauling and repairing on the farm. Winter quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 206 Mech. Arts.

27. GASOLINE TRACTOR OVERHAULING. The overhauling of the tractor including babbitting of bearings, fitting of new parts and the operation of the tractor. Prerequisite, Tractor Design and Operation 24. Fall quarter. Four credits.

M. W. F. 2:00 to 5:00. Room 206 Mech. Arts.

SENIOR COLLEGE COURSES

128. GASOLINE TRACTOR OVERHAULING. A continuation of Tractor Repair 27. It includes trouble work and operating of the tractor under load. Prerequisite, Tractor Repair and Operation 27. Winter quarter. Four credits

M. W. F. 2:00 to 5:00. Room 206 Mech. Arts.

129. TRACTOR REPAIR AND OPERATION. An advanced course for men wishing to specialize in tractor service work. It includes field work, operating problems, trouble shooting, and repairs. Prerequisites, Tractor Repair and Operation 27 and 128. Fall quarter. Four credits.

T. Th. S. 8:00 to 11:00. Room 206 Mech. Arts.

VULCANIZING AND TIRE REPAIR

JUNIOR COLLEGE COURSES

30. VULCANIZING AND TIRE REPAIR. A thorough course in the repairing of casings and tubes, including the building up of

tire sections. This course is for men who wish to qualify to take charge of a tire repair shop. Winter quarter. Three credits.

T. Th. 2:00 to 5:00. Room 204 Mech. Arts.

31. VULCANIZING AND TIRE REPAIR. A continuation of Tire Repair 30. It also includes retreading, shop problems and equipment. Prerequisites, Tire Repair 30. Spring quarter. Three credits.

T. Th. 2:00 to 5:00. Room 204 Mech. Arts.

MECHANIC ARTS

FORGING AND GENERAL BLACKSMITHING

ROY EGBERT, *Assistant Professor.*

An average of one-third of the time in all courses in forging is spent demonstrating and lecturing. All courses are given in the Forge rooms, Mechanic Arts Building.

JUNIOR COLLEGE COURSES

1, 2, 3. FORGE PRACTICE. Forging, welding, tempering, tool making and other operations essential to forge shop work. Open to Vocational students. Fall, Winter and Spring quarters.

Sec. 1 and 2 daily 8:00 to 11:00. Seven credits.

Sec. 3 and 4 daily, except Saturday, 2:00 to 5:00. Six credits.

May not be used to fill requirements for major.

Egbert

4, 5, 6. FORGE SHOP OPERATIONS. Advanced forging and general repair work, including plow work, spring work, axle and tire setting ,and horseshoeing. Prerequisites, Forge Practice 1, 2, 3. Fall, Winter and Spring quarters.

Sec. 1, daily 8:00 to 11:00. Six credits.

Sec. 2, daily, except Saturday, 2:00 to 5:00. Five credits.

Egbert

7, 8, 9. SELECT WORK FROM FORGE PRACTICE, 1, 2, 3, for automobile and tractor students who cannot spend each day in the shops. Fall, Winter and Spring quarters. Sec. 1, 2, and 3, four credits each quarter. Sec. 4, three credits each quarter.

Sec. 1. M. W. F. 8:00 to 11:00.

Sec. 2. T. Th. S. 8:00 to 11:00.

Sec. 3. M. W. F. 2:00 to 5:00.

Sec. 4. T. Th. 2:00 to 5:00.

Egbert

10. ADVANCED SHORT COURSE. For students who have had some work, but cannot fit the regular schedule. Work selected from regular courses. Time and credit to be arranged with the instructor.

Egbert

11, 12, 13. FARM SHOP WORK. This course is especially arranged for students in agriculture. The application of forging operations to repairs on the farm. The repairing of the following farm implements will be included in the course: plow, harrow, wagon, hayrake, mowing machine, binder, header, etc. Making and tempering punches, cold chisels, sharpening and tempering harrow teeth, picks, etc. Welding. Fall and Spring quarters. Two credits each quarter.

T. Th. 2:00 to 5:00.

Egbert

14, 15, 16. AUTOMOBILE REPAIRS. Repairing and building bodies, wheels and springs. Prerequisites, Forge Practice 1, 2 and 3. Fall, Winter and Spring quarters.

Sec. 1, daily, 8:00 to 11:00. Six credits.

Sec. 2, daily, except Saturday, 2:00 to 5:00. Five credits.

Egbert

SENIOR COLLEGE COURSES

100, 101. ADVANCED SHOP PRACTICE. Composition and head treatment of steel. The student may emphasize any line of

blacksmithing work that suits his particular needs. Prerequisites, Forging 4, 5, 6. Fall and Winter quarters. Five credits each quarter.

Daily 2:00 to 5:00.

Credit will be given for unfinished courses according to work done. Not less than two credits will be given.

Egbert

FOUNDRY. Operated for demonstration and the making of castings. If a sufficient number of students apply, the foundry will be run for instructional purposes also.

MACHINE WORK

AARON NEWEY, *Associate Professor.*
C. H. STEVENS, *Instructor.*

All courses given in Machine Shops, Mechanic Arts Building.

JUNIOR COLLEGE COURSES

1, 2, 3. MACHINE SHOP PRACTICE. Lathe, planer, shaper, drill press operations, the use of hand tools, laying out and making automobile and machine parts and other operations essential to machine shop practice. The shop work is supplemented each quarter by a course in shop technology and shop mathematics. Open to vocational students. These courses may not be used to fill requirements for major.

Daily, 8:00 to 11:00. Fall, Winter and Spring quarters. Seven credits.

Daily 2:00 to 5:00. Fall, Winter and Spring quarters. Six credits.

Newey and Stevens

4. SHORT COURSE. Work selected from Machine Shop Practice 1. Open to vocational students. Four credits.

Fall and Spring quarters.
T. Th. S. 8:00 to 11:00.
M. W. F. 2:00 to 5:00.
Winter quarter.
M. W. F. 8:00 to 11:00.
T. Th. S. 8:00 to 11:00.
M. W. F. 2:00 to 5:00. *Newey and Stevens*

5. ADVANCED SHORT COURSE. Work selected from Machine Shop Practice 2 including Shop Technology and Shop Mathematics. Prerequisite, Short Course. Open to vocational students. Four credits. Fall, Winter and Spring quarters.

M. W. F. 8:00 to 11:00.
M. W. F. 2:00 to 5:00. *Newey and Stevens*

6, 7, 8. GENERAL MACHINE WORK. Advanced lathe and planer work, milling, gear cutting, tool grinding, building simple machines and automobile parts. Prerequisite, Machine Shop Practice 3. Fall, Winter and Spring quarters.

Daily 8:00 to 11:00. Six credits.
Daily 2:00 to 5:00. Five credits.

Newey and Stevens

SENIOR COLLEGE COURSES

101, 102, 103. TOOL MAKING. These courses include practice in making arbors, gauges, taps, reamers, milling cutters, etc., and in designing and building special tools. Prerequisite, General Machine Work 8. Fall, Winter and Spring quarters.

Daily 8:00 to 11:00. Six credits.
Daily 2:00 to 5:00. Five credits.

Newey and Stevens

Note: For unfinished courses, credit will be given according to work done. Not less than two credits will be given.

WOODWORK AND HOUSEBUILDING

A. J. HANSEN, *Associate Professor.*
D. A. SWENSON, *Instructor*

The shops, located in the Mechanic Arts Building, are open daily from 8:00 to 12:00 a. m. and from 2:00 to 5:00 p. m. except Saturdays, when they are open from 8:00 to 12:00 a. m. only.

Regular five credit courses run five days a week, three hours a day, during Fall, Winter and Spring quarters. Three hours a week throughout the quarter are required for each credit. All courses are open to vocational students.

JUNIOR COLLEGE COURSES

1. ELEMENTARY WOODWORK. Scarfing, morticing, dovetailing and jointing. Proper handling of tools is emphasized.

2. ELEMENTARY WOODWORK. Panels, sashes, doors, etc., and rafter cutting; also thorough practice in tool sharpening.

3. ELEMENTARY WOODWORK. Feedhoppers, trestles, gates, grindstone frames, beehives, etc., and simple furniture.

These courses may not be used to fill requirements for major.

Hansen

4, 5, 6. MACHINE WORK. The use of wood working machinery, building of a modern work bench and tool chest, elementary and advanced wood turning. Prerequisite, Woodwork 3.

Swenson

7, 8, 9. HOUSEBUILDING. AND CABINET MAKING. Framing and roofing, door frames and window frames, French doors, casing up and finishing. Also furniture in fir and oak, staining, fuming, etc.

Swenson

10. FARM WOODWORK. A special course for students who expect to specialize in farming. Embraces such problems in

woodwork as are commonly met on the farm. Three hours daily and three days a week throughout the year. Three credits each quarter.

Hansen

11. Wood Carving. Simple problems in straight and curved lines, simple conventional ornaments and natural foliage. Time and credit to be arranged with the instructor.

Swenson

SENIOR COLLEGE COURSES

101, 102, 103. Advanced Woodwork. Special furniture, floor lamps, table lamps, nut bowls, etc. Mahogany and other fancy woods used. Veneering, inlaying and hand polishing. Prerequisite. Woodwork 9.

Swenson

105. Pattern Making. Making of practical patterns for use in the College foundry. Time and credit to be arranged with the instructor.

Swenson

106. Advanced Short Courses. For students who do not fit into the regular schedule. Prerequisite, work equivalent to that listed under Junior College courses. Credit according to work done.

Swenson

107. Picture Framing. Making of simple mouldings and frames, finishing, mat cutting, mounting and fitting. May be had in connection with the advanced courses in woodwork. Time and credit to be arranged with the instructor.

Swenson

108. Wood Finishing. Paints, pigments, oils and their manufacture. Water, oil and spirit stains. Varnishes, kinds and preparation. Practical application in staining, varnishing, rubbing and hand polishing. May be taken any quarter if four or

more students apply. One lecture a week each quarter. One credit. Time to be arranged with the instructor.

Hansen

MECHANICAL DRAWING

EDMUND FELDMAN, *Associate Professor*

Drawing rooms are open from 8:00 to 5:00, Daily. Supervised instruction given from 9:00 to 12:00 and from 2:00 to 4:00, daily, except Saturday. Three hours a week are required for each credit. All classes carried on simultaneously in Room 307, Agricultural Engineering Building. The following courses are offered each quarter:

JUNIOR COLLEGE COURSES

1. AGRICULTURAL DRAWING. The use and care of instruments and orthographic projection. Two credits.

2. AGRICULTURAL DRAWING. Farm structures in orthographic projection. Two credits. Prerequisite, Drawing 1.

3. AGRICULTURAL MAPPING. Maps and topographical drawing of farm problems. Two credits. Prerequisite, Drawing 1 and 2.

4. POULTRY HOUSE DESIGN. Complete working drawings of various types of poultry houses. Two credits. Prerequisite, Drawing 1 and 2.

5. BARN LAYOUT AND DESIGN. Working drawings of various types of barns. Two credits. Prerequisites, Drawing 1 and 2.

6. LANDSCAPE DRAWING. For students of Horticulture. Two credits.

11. ENGINEERING DRAWING. The use and care of instruments, applied geometry and orthographic projection. Three credits.

12. ENGINEERING DRAWING. Developing surfaces and intersections. Three credits. Prerequisite, Drawing 11.

13. ENGINEERING DRAWING. Pictorial presentation, isometric, oblique and cabinet projections. Three credits. Prerequisite, Drawing 11 and 12.

14. HIGHWAY STRUCTURES. Structural problems such as bridges, dams, retaining walls, etc., in orthographic projection. Two credits.

21. DRAWING FOR BUILDERS AND MECHANICS. The use and care of instruments and orthographic projections. Two credits.

22. DRAWING FOR MECHANICS. Drawing of shop exercises in orthographic projection and free hand sketching of machine parts. Two credits. Prerequisite, Drawing 21.

23. DRAWING FOR BUILDERS. Building details such as walls, windows, doors, etc. Two credits. Prerequisite, Drawing 21.

24. MACHINE DRAFTING. Drawing of fastenings such as bolts, screws, etc. Two credits. Prerequisites, Drawing 21 and 22 or 10 and 11.

25. MACHINE DRAFTING. Detail drawings of machine parts. Three credits.

26. MACHINE DRAFTING. Assembly and detail drawings of machine and machine parts. Three credits.

31. MAP AND TOPOGRAPHICAL DRAWING. Surveys, symbols, topographical maps, etc. Three credits.

41. LETTERING AND DESIGNING OF COMMERCIAL AND OTHER FORMS. Three hours work for one credit.

SENIOR COLLEGE COURSES

111. DESCRIPTIVE GEOMETRY. Of practical value to the mechanic and engineer in making and reading working drawings and in solving graphical problems. The point, line, plane and simple solids are studied. Any quarter. Five credits. Hours to be arranged.

112. Linear Perspective. Shades and shadows. Of interest to the advanced student of rural architecture and mechanical drawing. Any quarter. Three credits. Hours to be arranged.

114. Irrigation Drafting. Drafting of irrigation structures including pumping plants, etc. in orthographic projection. Three credits. Any quarter.

121. Architectural Drawing. The complete working drawings for a small farm house including plans, elevations, specifications, and necessary details. Five credits. Any quarter.

131. Advanced Topographical Drawing. Complete topographical maps, contours, lettering, coloring, etc. Three hours work for one credit.

School of Home Economics

Carrie Castle Dozier, *Professor.*
Johanna Moen, *Professor.*
Alice Kewley, *Professor.*
Calvin Fletcher, *Professor*
Charlotte Dancy, *Assistant Professor.*
Christine B. Clayton, *Assistant Professor.*
Ray L. Ormsby, *Instructor.*
Florence Walker, *Instructor.*

FOODS AND DIETETICS

All students who elect Foods and Dietetics as their major are required to complete Foods 20, 105 and 140, and are urged to include Household Administration 150. Students wishing to qualify as teachers of Foods and Dietetics must complete Education 120, 121 and 122.

JUNIOR COLLEGE COURSE

20. Food Economics. Production, distribution and composition of foods. Preparation of foods with reference to their chemical and physical properties. Prerequisites, Chemistry 1, 2. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. and Lab. T. Th. 2:00 to 5:00. Room 17 H. E.

Clayton

SENIOR COLLEGE COURSES

105, 106, 107. Food Engineering. Economic, sanitary and aesthetic principles involved in the purchase, preparation and serving of food. Food preservation and food poisoning. Essentials of well planned and efficient kitchen and dining room; furniture and equipment. Prerequisites, Foods 20 and Bacteriology 1. Fall, Winter and Spring quarters. Three credits each quarter.

Lec. and Lab. M. W. F. 10:00 to 1:00. Room 26 H. E.

Clayton

140, 141, 142. Dietetics. Quantitative basis of human nutrition illustrated by a study of the energy value of foods as determined by direct and indirect calorimetry and nitrogen and mineral balances. Biological analysis of foods illustrated by problems in animal feeding. Calculation and preparation of diets to supply various needs. Prerequisites, Chemistry 21, 22, Bacteriology 111, Foods 105. Fall, Winter and Spring quarters. Four credits each quarter.

Lec. T. Th. 9:00. Room 26 H. E. Lab. M. W. 2:00 to 5:00. Room 25 H. E. *Dozier*

190, 191, 192. Special Study For Advanced Undergraduates and Graduates. Introduction to problems of nutritution through assigned reading and reports of current literature. Fall, Winter and Spring quarters. Two credits each quarter. Two consecutive hours once a week. Time to be arranged. Room 26 H. E. *Dozier*

GRADUATE COURSE

210. Research. Investigation of problems concerned with food preparation and nutrition. Time and credit to be arranged. *Dozier*

HOUSEHOLD ADMINISTRATION

Students who elect Household Administration as their major are required to complete the following courses: Household Administration 25, 122, 123, 125, 130, 150. Students wishing to qualify as teachers of Household Administration must complete Education 120, 121 and 122.

JUNIOR COLLEGE COURSES

10, 11, 12. Personal Accounts. Keeping accurate records of each student's expenditures during college life; a critical and comparative study of students' spending habits as shown by the actual accounts kept; consideration of the principles underlying wise buying. Open to all college women. Fall, Winter and Spring quarters. One credit each quarter.

Friday 12:00. Room 12 H. E. *Dozier*

(Any college student who has received three hours credit for the above course may earn one hour credit by keeping records of one year's expenditures during college life, using for the record the form employed for class use and doing the work under supervision of the instructor in charge of Household Administration 10.)

20. History of Domestic Architecture. History of the house from primitive times to the present. Spring quarter. Three credits. Hours to be arranged. *Fletcher*

21. History of Furniture. History of interior decoration and furniture styles. Spring quarter. Three credits.

M. W. F. 10:00. Art Rooms, Main.

(Not given 1924-25. *Fletcher*

25, 26. HOME HEALTH AND NURSING. Special emphasis on the prevention of disease and on the building up of the highest degree of health. Treatment of functional disturbances, injuries, wounds, etc., receives due attention. Lectures, discussions and laboratory demonstrations. Reading of reference works and writing of special reports are required. Winter and Spring quarters. Three credits each quarter.

Lec. M. W. 8:00. Room 12,H. E. Lab. F. 2:00 to 5:00. Room 11, H. E.

Dancy

SENIOR COLLEGE COURSES

125. MOTHERCRAFT. Vital questions of the adolescent period. Correct and incorrect impressions concerning prenatal influences and physiological changes during pregnancy. Care of the expectant mother, care of infants and causes and prevention of infant mortality. Prerequisites, Household Administration 25, 26, Physiology 1, or Zoology. Spring quarter. Three credits.

Lec. M. W. F. 9:00. Room 12, H. E.

Dancy

150. HOUSEHOLD MANAGEMENT. A study of the organization and management of the household and of the ideals fundamental to wholesome family life. Laboratory projects will consist of the application of the underlying principles of household management during the twelve weeks residence in the Home Economics Cottage. A fee of $6.00 each week will be charged each students while in residence. Open to seniors only. Prerequisites, Household Accounts, Foods 105, Textiles 20. Two lectures a week in addition to the laboratory projects in the cottage. Fall or Winter quarter. Five credits each quarter.

Lec. T. Th. 12:00. Fall quarter only. Room 26, H. E.

Kewley

For closely related courses see:
Accounting 107 (Household Accounts.) *Peterson*

Art 122 (Home Planning and Construction.) *Fletcher*
Art 123 (Interior Decoration.) *Fletcher*
English 195 (Literature for Children.) *Coulter*

TEXTILES AND CLOTHING

Students who elect Textiles and Clothing as their major are required to complete the following courses: Textiles and Clothing 10, 20, 30, 105, 115, 125, 160. Students wishing to qualify as teachers of Textiles and Clothing must complete Education 120, 121, and 122.

JUNIOR COLLEGE COURSES

1. CLOTHING FOR THE FAMILY. A short unit course planned to meet the needs of special students. This course includes planning the family wardrobe; construction of garments for different ages; selection of materials and garments from the standpoints of health, beauty and economy. Three credits. Winter quarter.

M. W. F. 2:00 to 5:00. H. E. Room 36.

Note: Regular students entering Winter quarter who wish to continue in Textiles 10 during the Spring quarter may do so by taking the required Art courses and by special permission of the instructor.

Ormsby

5. DRESS APPRECIATION. This course aims to furnish any student, whether or not her major interest is in the field of Textiles and Clothing, with a practical knowledge of Textiles and an appreciation of good design in dress. Clothing budgets, clothing and textile economics, care of clothing and clothing hygiene are also considered. Two credits. Winter quarter.

T. Th. 11:00. H. E. Room 36.

Walker

10, 11, 12. ELEMENTARY CLOTHING AND HANDWORK. This course includes the fundamental principles of budgeting, drafting, design and pattern making; selection and construction of underclothing, dresses, and household furnishings. Lectures and laboratory work. Prerequisites or parallel Art 1, 2, 3. Fall, Winter and Spring quarter. Two credits each quarter.

Sec. 1. M. W. 2:00 to 5:00. Room 33 H. E.

Moen and Ormsby

Sec. 2. T. Th. 2:00 to 5:00. Room 36 H. E. *Walker*

Sec. 3. M. W. F. 10:00 to 12:00 Room 36 H E. *Walker*

Note: Section 3 is especially designed for those who have not had Textiles in High School.

20, 21. ECONOMICS OF TEXTILES. A study of standard materials used for clothing and house furnishings. These materials are considered from the standpoint of design, structure, fiber content and such physical tests as will determine quality and relative value. The fibers, their production, properties and past and present method of manufacture are studied as a basis for intelligent purchase and use of materials. Prerequisites, Textiles 10, 11, 12. Prerequisites or parallel, Economics 1, 2, 3. Fall and Winter quarters. Three credits each quarter.

M. W. F. 9:00. Room 33, H. E.

Moen

30. MILLINERY. Designing and drafting patterns for hats; construction of frames from buckram, rice net and wire; various methods of covering foundations; prerequisites or parallel, Art 1, 2, 3, Textiles 10, 11, 12 or their equivalents. Three credits. Room 36 H. E.

Sec. 1. Fall quarter. M. W. F. 2:00 to 5:00.

Sec. 2. Spring quarter. M. W. F. 2:00 to 5:00.

Walker

40, 41, 42. HANDWORK AND WEAVING. Lectures and laboratory work, including and practical instruction in the selection, preparation, care and repair of table linen, bed linen, etc.; var-

ious specialized embroideries; simple weaving. Prerequisites or parallel, Art 1, 2, 3, and Textiles 10, or their equivalents. Fall, Winter and Spring quarters. One credit each quarter.

Friday 2:00 to 5:00. Room 33, H. E.

Moen

SENIOR COLLEGE COURSES

105. History of Costume. A study of Egyptian, Grecian, Roman, early and modern French costumes. Fall quarter. Three credits.

M. W. F. 10:00. Room 330 Main.

Fletcher

115. Costume Design. Design in costume, rythm of line, harmony of color. Sketching gowns and hats; study of styles suitable to various types. Winter quarter. Three credits.

M. W. F. 10:00. Room 330 Main.

Fletcher

125. Applied Costume Design. Practical training in the use and adaptation to different individuals and purposes of the designs made in Textiles 115, as well as designs taken from current fashion magazines. Spring quarter. Three credits.

M. W. F. 10:00 to 12:00. Room 33, H. E.

Moen

160, 161, 162. Clothing Advanced. Advanced dress design, construction of dresses, infants and children's clothing, including laboratory work. Prerequisites, Textiles, 10, 11, 12, 21, 105, 115, 125. Fall Winter and Spring quarters. Two credits each quarter.

T. Th. 2:00 to 5:00. Room 33, H. E.

Moen

For closely related course see:

Chemistry 109 (Chemistry of Textiles). Students who elect Textiles and Clothing as their major are urged to take this course.

Thirty-first Annual Commencement

LIST OF GRADUATES 1923-24

MASTERS OF ART

In Agriculture

Bateman, Alfred Hess
Bracken, Aaron F.
Ellsworth, Von Theurer
Jensen, Irving Joseph
Linford, Maurice Blood
Lambert, J. Carlos
Maughan, Joseph Howard
Nelson, Peter
Ranker, Emery Romain
Staker, Ernest Vernon
Tingey, Delmar Clive
Walker, Dilworth

In Agricultural Engineering

Bowen, Leslie
Jerman, Donald

In Basic Arts and Sciences

Barrett, Charles Elmer
Nelson, Daniel Hans

In Commerce and Business Administration

Smith, Rulon

In Home Economics

Morris, Sadie O.

BACHELORS OF SCIENCE

In Agriculture

Adamson, David Duane
Atwood, Walter Edward
Cole, Wilford Chase
Daniels, Fred
Eagar, James Horace
Ellsworth, Von Theurer
Fawcett, Jedediah Robert
Forsgren, John Clifford
Frischknecht, Carl
Garner, Ray Douglas
Hadfield, William Edward
Hales, Heber Lee
Hunter, Walter Spencer
Ivins, Loraine Redd
Jensen, Clifford Moroni
Jones, Lawrence Walter

Lougee, John
Lyman, Eugene Ray
Midgley, Alvin Rees
Mortensen, Hyrum Knud
Nichols, Mark Harding
Oberhansley, Frank Reid
Packer, Grant Parkinson
Ranker, Emery Romain
Reid, Dalton McCauley
Rencher, John Umpsted
Savage, Willis
Schank, Leroy Christian
Seegmiller, Charles Roscoe
Sessions, Alwyn C.
Shaw, Clarke C.
Smith, Farrell P.
Smith, Delmar Eyre
Starr, Albert LeRoy
Tanner, Arthur E.
Whornham, George
Woodruff, Oliver C.

In Agricultural Engineering

Barrett, Joseph Milton
Chamberlain, Karl S.
Coles, Herschel Henry
Dalton, Hiram Euen
Gurrell, Norbert Austin
Hitzker, Albert John
Hyde, Oliver Wendell
Jones, Aaron Barlow
Logan, John Stuart
Sorensen, Phillip H.
Spenny, Addison L.
Trask, James William
Whitney, Byron Miller
Willesen, William H.

In Mechanic Arts

Burgoyne, John Melvin
Fowles, Joseph Dell
Newton, Fred Miall
Winn, Carl Dewey

In Basic Arts and Science

Adamson, Herbert G.
Barlow, Naomi
Bartlett, Jeffrey Hobart
Bennion, Elma
Chadwick, Ruth Horsley
Croft, John
Fife, James Milton
Fry, Mabel Nelson
Fry, Verle Nelson
Funk, Claudia Lucile
Geddes, Martha
Gordon, Edith Marion
Hayward, Ira N.
Hendricks, Abbie
Howell, Wesley G.
Jensen, Milton B.
Johnson, Clover Vivian
Johnston, Afton E.
Jones, Bliss Ivins
Keller, Allen D.
Kennard, Frankland James
King, Ralph Theodore
Knowles, Willard Baugh
Morris, Elgin Henry
Nelson, Myra
Obray, Ernest Sheldon
Osmond, Waldo
Patrick, Inga Amelia
Peterson, Moylen
Richards, Iva Lucile
Shepard, Dorothy Alice
Smith, Rulon
Smith, Veda Chambers
Smith, Ardella Bell
Sorenson, Lawrence James
Tingey, Mabel Anderson

Tolman, Lloyd Willis
Wood, Catherine
Wootton, David Alvah
Young, Karl Egbert

In Commerce and Business Administration

Ballinger, Pearson A.
Belnap, Rosel Stanton
Bickmore, Charles Irving
Cranney, Kimball J.
Frost, James Anthony
Hammond, Owen Cyril
Harris, Sterling R.
Hawley, Luell
Hickman, Radino Lawisch
Kotter, Horace
Loose, Clarence Charles
Merrill, Ray Stoddard
Smith, Robert Denton

In Home Economics

Alexander, Viola Allen
Burningham, Josephine
Cox, Verona
Eagar, Martha Cazier
Elsmore Aldia
Fife, Ila
Free, Josephine
Hussey, Norma
Lund, Ethel Bernettie B.
Nielsen, Edith
Nelson, Naomi
Pedersen, Alice Elizabeth
Peterson, Myrtle
Sessions, Alice
Smith, Norma Irene
Williams, Agnes Erma
Wood, Delores

OFFICERS RESERVE CORPS OF THE ARMY OF THE UNITED STATES

Second Lieutenant, Coast Artillery Corps

Cooley, LaVell I.
Kennard, Frankland J.
Osmond, Lloyd W.

Second Lieutenant, Quartermaster Corps

Adamson, Herbert G.
Bankhead, Heber N.
Croft, John
Olsen, H. Hugo
Sessions, Alwyn C.
Wood, W. Edwin

Honors, 1923-24

SCHOLARSHIP: The following students have been selected as deserving special distinction for high achievement in scholarship. They have, accordingly, received either Scholarship A's or Honorable Mention.

SCHOLARSHIP A's

Emery R. Ranker
Loran H. Blood
Walter Fuhriman
Randolph Riter
Stanley Christensen
R. B. Jeppson

HONORABLE MENTION

Elmer Burnett
Angus G. Woodruff
Garr Cutler
Cleon P. Daniels

DEBATING AND ORATORY

Inter-Collegiate Debating

Emery R. Ranker
Francis R. Wilcox
Preston M. Nielson
Milton R. Merrill
Naomi Barlow
Verle Vry
Ira N. Hayward

The Howell Medal Awarded to:
Ira N. Hayward

The Hendricks Medal Won by:
Weston Vernon, Jr.

The Sons of the American Revolution Medal Won by:
Preston M Nielson

Inter-Class Debating Championship Won by:

Sophomore Class, represented by:
Serge Benson
Ariel C. Merrill

SCHOLARSHIPS

The following students were awarded the Johansen Scholarships for 1924-25:

Malcolm Merrill
Morley Christensen
Loran H. Blood

STUDENT OFFICERS

Student Body Officers:

John S. Logan	President
Josephine Burningham	Vice-President
Allie Peterson	Secretary
Weston Vernon	Managing Editor, "Student Life"
Preston M. Nielson	Associate Editor, "Student Life"
Milton Merrill	Associate Editor, "Student Life"
Malcolm Merrill	Business Manager, "Student Life"
Ariel C. Merrill	Assistant Business Manager, "Student Life"
Wilford Coles	Editor-in-Chief, "The Buzzer"
Lawrence Jones	Business Manager, "The Buzzer"

SPECIAL AWARDS

The Citizenship Award, a medal given for distinguished College Citizenship, was awarded to Ralph T. King.

The Lois Hayball Medal, given to the best student in home economics, was awarded to Mrs. Rose J. Thompson and Miss Carol Hanson in 1923 and to Miss Josephine Burningham in 1924.

The Reserve Officers' Training Corps Medal, given to the member of the R. O. T. C. who best represents the ideals of the Corps, was awarded to Cadet Major Herbert Adamson.

The William Peterson Science Medal, given to the author of the best paper on some selected scientific subject, was won by Fred C. Gregory.

The Vernon Medal, given to the writer of the best short story written around a western setting, was won by Lawrence Sorenson.

Tau Kappa Alpha Debating Cup, given to the Institution by the U. A. C. Chapter of Tau Kappa Alpha, national honorary debating fraternity, in honor of State Debating Championship won by U. A. C. teams in 1924.

List of Students, 1923-24

In the following list "a" stands for agriculture; "aema" for agricultural engineering and mechanic arts; "bas" for basic arts and science; "ho" for home economics; "c" for commerce; "ss" for summer school; "G" for Graduate; "S" for Senior; "J" for Junior; "So" for Sophomore; "F" for Freshman; "V" for Vocational; "Fed" for Federal; "Un" for unclassified.

Abersold, Narvel J. bas-F.....Providence
Adams, Armenia ho-So.....Logan
Adams, Clare ss-bas.....Logan
Adams, Harriet ho-So.....Logan
Adams, Joseph C. c-J.....Logan
Adams, Marion aema-ss.....Salt Lake City
Adams, Verena c-J.....Logan
Adamson, David D. a-S-Fed-ss.....Pleasant Grove
Adamson, Herbert bas-S.....Richmond
Adkins, Bessie ho-V.....Logan
Adkins, Olen R. aema-V-Fed-ss.....Casper, Wyoming
Allen, Denzel C. bas-So.....Tuttle, Idaho
Allen, Lloyd E. a-V.....Logan
Alexander, Viola ho-S-ss.....Raymond, Alta, Canada
Alliston, Charles R. aema-V-Fed-ss.....Benson
Allred, B. Wendell a-So.....Moab
Allred, Edgar M. bas-S.....Logan
Allred, Harold bas-V.....Boise, Idaho
Allred, Juston P. a-V-Fed-ss.....Logan
Alvord, L. G. c-Un.....Logan
Amussen, Flora bas-J-ss.....Logan
Anderson, Annie bas-So.....Logan
Anderson, Beatrice ho-So.....Sandy
Anderson, DeEsta bas-F-ss.....Logan
Anderson, Lucille bas-ss.....Logan
Anderson, Mary bas-ss.....Logan
Anderson, Melvin E. a-J.....Logan
Anderson, Minnie bas-ss.....Logan
Anderson, Peter E. aema-V-Fed.....Logan
Anderson, Rachel bas-ss.....Grantsville
Anderson, Silas W. a-J.....Richmond
Anderson, Sterling, bas-so.....Grantsville
Anderson, Vida Stewart bas-F.....Logan
Andrew, Blenda c-V.....Logan
Andrews, J. E. a-F.....Nephi
Andrews, M. Elva bas-ss.....Logan

Angus, Bell bas-ss.....Roosevelt
Arakawa, Yasua a-S.....Salt Lake City
Armstrong, Armond J. a-F.....Ephraim
Atwood, Walter E. a-S-Fed-ss.....Salt Lake City
Austin, Bessie bas-F.....Idaho Falls, Idaho
Austin, L. J. a-J-Fed-ss.....St. Anthony, Idaho
Austin, William G. aema-V-Fed-ss.....Trenton
Babcock, Branch L. aema-V-Fed-ss.....Spanish Fork
Bach, Paul a-F.....Etna
Bachman, Halvey c-J.....Ogden
Badger, Barbara ho-So.....Salt Lake City
Badger, Rosalia bas-F.....Salt Lake City
Bagley, Clara Alice bas-ss.....Provo
Bahen, Alice ho-F.....Paradise
Baird, Chauncey bas-ss-Fed.....Logan
Bailey, Edwin A. a-F.....Nephi
Bair, Amos W. a-J.....Richmond
Baker, Cecil a-J.....Minersville
Baldwin, Thora bas-F.....Salt Lake City
Ballantyne, Ruth bas-ss.....Logan
Ballard, Afton bas-ss.....Logan
Ballard, Carmen ho-G-ss.....Logan
Ballinger, P. A. c-S.....Ogden
Bankhead, Heber N. c-S.....Logan
Bankhead, Loyal aema-V.....Logan
Barber, Solon R. bas-G-ss.....Logan
Barker, Elwood Ives bas-J.....Ogden
Barker, Horace L. a-J.....Ogden
Barlow, Naomi bas-S.....Bountiful
Barnfield, Rufus aema-V-Fed-ss.....Los Angeles, Calif.
Barrett, J. Milton aema-S.....Logan
Barrows, Effie bas-ss.....Logan
Barrus, Marion bas-F.....Logan
Barson, LaRee ho-V.....Clarkston
Barson, Peter E. aema-V.....Clarkston
Bartlett, Jeffery Hobart bas-S.....Burley, Idaho
Bateman, Alfred Hess a-G-ss.....Logan
Bateman, George Monroe bas-ss-G.....Logan
Bateman, Harold Claude c-J.....Paris, Idaho
Bates, George S. bas-G-ss.....Logan
Baxter, Golden a-So.....Hyrum
Beagley, Harry a-G-ss.....Nephi
Beaumont, Ellen bas-F.....Beaver
Beckstead, Hesy c-F.....Preston, Idaho
Bedke, Jesse c-F.....Oakley, Idaho
Belnap, R. S. c-S.....Ogden
Bennett, Aura bas-F.....Logan
Bennett, G. Spencer c-F.....Ogden
Bennett, Mabel bas-F.....Shelley, Idaho

Bennion, Deane ho-G-ss.....Vernal
Bennion, Elma bas-ss.....Logan
Bennion, E. Leland c-So.....Vernal
Benson, Linda N. bas-ss.....Logan
Benson, Serge N. bas-So-ss.....Logan
Benson, Sergene bas-J-ss.....Logan
Bentley, Benj. F. aema-V-Fed-ss.....Halfway, Wyoming
Berge, William aema-V.....Murray
Bergstrom, J. E. aema-J-Fed-ss.....Salt Lake City
Bernston, Milton R. c-S.....Logan
Berrett, Floyd bas-So.....Murray
Berrett, Golden aema-F.....Murray
Bickmore, C. Irving c-S.....Logan
Bickmore, LeRoy bas-So.....Logan
Bickmore, Wallace bas-J.....Paradise
Bickmore, Wm. Kenneth bas-F.....Brigham
Biggs, Ernest a-So.....Franklin, Idaho
Bingham, Hazel ho-S.....Ogden
Bingham, James W. bas-G-ss.....Montrose, Colorado
Birch, James Byron bas-G-ss.....Fillmore
Biorn, Annie bas-ss.....Logan
Birch, Rex E. c-Un.....Duchesne
Birkes, William H. aema-V-Fed-ss.....Independence, Kansas
Bischoff, Clara T. ho-F.....Logan
Bischoff, Robert Kenneth a-So.....Logan
Bishop, Joseph C. aema-V-Fed-ss.....Kaysville
Bishop, Leroy c-F.....Garland
Bissegger, Bernice bas-V.....Providence
Black, LaVar M. a-F.....Huntington
Blackburn, T. H. a-V-ss.....Loa
Blanchard, Raymond aema-So.....Logan
Blekkink, Gerrit H. aema-V-Fed-ss.....Sioux City, Iowa
Blood, Loran H| a-So.....Malad, Idaho
Blotter, Adolph aema-V-Fed-ss.....Logan
Bluemel Grace B. ho-F.....Logan
Bohman, Frieda bas-So.....Peterson
Bolingbroke, Delbert T. a-J.....Malad, Idaho
Bollschweiler, Allen F. c-F.....Logan
Bolton, Leslie F. aema-V-Fed.....Paris, Idaho
Boothe, Mrs J. N. ho-ss.....Logan
Bott, Victor J. bas-ss.....Brigham
Bowen, Grant R. a-J-Fed-ss.....Logan
Bowen, Leslie aema-G.....Spanish Fork
Bowles, Carl J. aema-So.....Nephi
Boyce, Paul C. a-So.....Murray
Bracken, Aaron F. a-G-ss.....Nephi
Bramwell, Anne L. bas-So.....Macdoel, Calif.
Brewer, Joseph Palmer aema-V-Fed-ss.....Burlington, Colorado
Brewer, Reason A. aema-S.....Perry, Iowa

Brenchley, Myron c-F.....Wellsville
Briggs, Moroni L a-V-Fed.....Salt Lake City
Brinkerhoff, Grace bas-So.....Teasdale
Brossard, Josephine c-F.....Rigby, Idaho
Brown, Benj. bas-V.....Logan
Brown, Dorothy ho-F.....Salt Lake City
Brown, Edward J. a-v-Fed.....Denver, Colo.
Brown, Harold J. aema-V-Fed-ss.....Colorado Springs, Colo|
Brown, Mary bas-So.....Logan
Brown, Nathan a-V-Fed-ss.....Woods Cross
Brown, N. E. bas-So.....Logan
Brown, Ruby c-ss.....Richmond
Browning, Mary ho-So.....Ogden
Brummett, Wesley B. a-J-Fed.....Duchesne
Brunner, Pauline bas-ss.....Provo
Buck, Lucy c-ss.....Smithfield
Budge, Edith T. ho-V.....Logan
Budge, Ivaloo bas-ss.....Logan
Budge, O. Wendell bas-J.....Logan
Budge, Rush C. c-F.....Logan
Buhler, Lloyd F. aema-So.....Logan
Bullen, Helen bas-J.....Logan
Burgoyne, Alma a-F.....Logan
Burgoyne, David A. c-G.....Logan
Burgoyne, Ivan E. a-So.....Logan
Burgoyne, John M. aema-S.....Montpelier, Idaho
Burnett, Elmer J. c-F.....Ogden
Burge, Russell J. aema-V-Fed-ss.....Agate, Colorado
Burnham, Erma bas-So.....Salt Lake City
Burnham, Janet bas-ss.....Logan
Burningham, Josephine ho-S.....Bountiful
Burns, A. Ethelyn bas-F.....Logan
Butts, Clyde A. a-S-Fed-ss.....Monticello
Byrnes, Mike M. a-V-Fed-ss.....Rochester, Minn.
Campbell, Alonzo Clem bas-G-ss*.....Logan
Campbell, Leo a-J-ss.....Moab
Card, W. LaVoir bas-S.....Logan
Cardon, Sybil bas-ss.....Logan
Cardon Thomas B. c-So.....Logan
Carlisle, John C. c-ss.....Logan
Carlson, Ada bas-ss.....Logan
Carlson, F. J. aema-ss.....Rigby, Idaho
Carlson, Frederick aema-Voc.....Logan
Carlson, John Wilford a-G-ss.....Logan
Carlson, Venice bas-ss.....Logan
Carroll, Daniel S. a-V-Fed-ss.....Vernal
Carter, Ezra bas-G.....Logan
Carter, Pearl J. bas-ss.....Logan
Chadwick, Elwood aema-F.....Morgan

Chadwick, Leroi C. aema-V.....Brigham
Chadwick, Ruth H. bas-S.....Brigham
Chambers, Chester bas-J.....Ogden
Champ, Francis bas-G.....Logan
Champlin, Bethol E. c-F.....Logan
Champlin, Doris E. c-F.....Logan
Chapman, Floyd aema-V.....Preston, Idaho
Chappell, Dell a-F.....Lyman
Chappell, Sperry bas-F.....Lyman
Childs, Bliss G. a-So.....Springville
Childs, Florence ho-J.....Springville
Child, Marcus C. c-F.....Ogden
Christensen, Alta bas-V.....Tremonton
Christensen, Anna Laura bas-F.....Brigham
Christensen, Frank bas-F.....Logan
Christiansen, Irma bas-ss.....Hyrum
Christensen, J. S. bas-G-ss.....Ephraim
Christensen, Leatha ho-F.....Shelley, Idaho
Christensen, Leona ho-V.....Central, Idaho
Christensen, Merwin a-F.....Tremonton
Christensen, Morley aema-So.....Brigham
Christensen, N. L. a-So.....Logan
Christensen, Rulon c-F.....Hyde Park
Christensen, Stanley bas-F.....Logan
Christensen, Wilford W. bas-G-ss.....Logan
Clark, Carlos W. aema-F.....Logan
Clark, Charles a-ss.....Hotchkiss, Colo.
Clark, Dan aema-V.....Park City
Clark, Doral c-F.....Logan
Clark, Ernest bas-ss.....Iona, Idaho
Clark, Hilda bas-ss.....Etna, Wyoming
Clark, Larene ho-V.....Richmond
Clark, Lealand A. a-F.....Logan
Clark, LeGrand bas-ss.....Coalville
Clark, Leo a-V-Fed-ss.....Vernal
Clark, LeRoy B. c-So-ss.....Logan
Clark, Lucius bas-S.....Treasureton, Idaho
Clark, Parley G. a-F.....Oakley, Idaho
Clark, Shirley a-F.....Logan
Clark, Vella bas-ss.....Newton
Clark, Wilford A. aema-V.....Logan
Claypool, Lavon ho-ss.....Smithfield
Clayton, Loretta c-F.....Salt Lake City
Clayton, Josephine bas-ss.....Logan
Clements, Charles J. bas-J-Fed-ss.....Ogden
Cluff, Millard P. a-S.....Mesa, Arizona
Coburn, Alta H. ho-V.....Logan
Cole, Laurel S. aema-F.....Logan
Cole, Ralph C. bas-J.....Nephi

Cole, Russell W. bas-J.....Logan
Cole, Wilford C. a-S.....Nephi
Coleman, Leila V. bas-So.....Teasdale, Utah
Coleman, Mae ho-F.....Heber City
Coles, Herschel H. aema-S.....Tremonton
Collett, Wells F. c-F.....Draper
Cook, Merlin A. bas-So.....Willard
Cook, Samuel Bryson a-F.....Paris, Idaho
Cooley, Hazen J. c-F.....Newton
Cooley, LaVell bas-J.....Logan
Coombs, Ellis D. ho-ss.....Fairview
Coray, Clarence A. aema-S.....Ogden
Cowley, Elna bas-ss.....Logan
Cowley, Joseph F. c-F.....Logan
Cowley, Samuel P. c-S.....Logan
Cox, Belva bas-J.....Fairview
Cox, Verona ho-S.....Fairview
Crabtree, Myrtle c-F.....Logan
Crane, Anna bas-J.....Logan
Crane, Louise ho-F.....Logan
Cranney, Kimball J. c-S.....Logan
Crawford, George W. bas-ss.....Logan
Creighton, Katherine bas-Un.....Eureka
Crockett, Virginia bas-ss.....Logan
Croft, John bas-S.....Ogden
Croft, Leonore bas-J.....Ogden
Crook, Albert a-So.....Heber City
Crook, Ella bas-F.....Logan
Crook, William C. a-G-ss.....Logan
Crowther, Bessie bas-ss.....Logan
Crowther, Clifton aema-F.....Logan
Curtis, Leland aema-V.....Hyrum
Cutler, Garr a-So.....Salt Lake City
Dahle, Norman G. aema-V-Fed-ss.....Logan
Dailey, Ephraim aema-V-Fed ss.....Paragonah
Daines, Amy bas-ss.....Hyde Park
Daines, Carmen ho-G-ss.....Logan
Daines, Henry a-F.....Logan
Daines, Luella c-G-ss.....Logan
Daines, Lydia May c-F.....Preston, Idaho
Daines, Orson S.....Hyde Park
Dalton, Hiram E. aema-S-Fed.....Logan
Dalton, Myra bas-F.....Parowan
Dancy, C. E. bas-Un.....Logan
Daniels, Cleon P. bas-F.....Payson
Daniels, Clyde a-V-Fed-ss.....Texakana, Texas
Daniels, Fred a-S-Fed-ss.....Tipton, Indiana
Daniels, LaVern C-F.....Ogden
Daniels, Theo M. bas-So.....Logan

Darley, Byron c-F.....Logan
Darley, Merrill M. bas-F.....Wellsville
Davidson, Leona bas-ss.....Logan
Davies, C. H. a-G-ss.....Provo
Davis, Gerald E. bas-F.....Malad- Idaho
Davis, Nancy bas-ss.....Provo
Davis, Owen bas-F.....Logan
Davis, Parley O. a-J.....Salt Lake City
DeBree, Marinus a-ss-Fed.....Logan
Decker, F. J. bas-F.....Salt Lake City
Degn, Waldemar aema-V.....Logan
Deschamps, Louis a-J.....Malad, Idaho
Despain, Robert E. a-S-Fed-ss.....Lovell, Wyoming
Dewey, Thomas A. bas-ss.....Sandy
Dewey, Zella G. bas-ss.....Sandy
Dewey, William E. bas-ss.....Sandy
Diehl, Clair M. aema-V-Fed-ss.....Atlanta, Georgia
Domgaard, Hyrum J. aema-V-Fed-ss.....Gusher
Doolas, George Z. a-Un-Fed.....Monticello
Douglas, M. P. c-So.....Ogden
Doxey, Lella bas-ss.....Ogden
Doxey, Vonda bas-So-ss.....Ogden
Dunbar, Wallace E. aema-S-Fed-ss.....Logan
Dunford, Neta bas-F-ss.....Logan
Dunn, S. A. bas-So.....Hyrum
Durfee, Edmond F. a-ss-Fed.....Randlett
Dutt, Basheshwar N. a-ss.....Ferzoepur Cantt (Punjab) India
Dutson, Merlin G. aema-V.....Logan
Eagar, James H. a-S-Fed.....Nephi
Eagar, Martha C. ho-S.....Nephi
Edwards, Albert W. a-V-Fed-ss.....Charleston
Edwards, John Hayes c-V.....Salt Lake City
Edwards, Mae bas-G-ss.....Logan
Egbert S. R. aema-G.....Logan
Eggen, Siles a-G-ss-Fed.....Logan
Elder, Ernest A. a-S.....Salt Lake City
Eliason, Due bas-J.....Logan
Ellis, Harold C. aema-V.....Salt Lake City
Ellis, Henry J. aema-V-Fed-ss.....Paris, Idaho
Ellis, Wayne A. a-F.....Pleasant Grove
Ellsworth, Reo c-F.....Idaho Falls, Idaho
Ellsworth, Von T. a-G-Fed-ss.....Rigby, Idaho
Elsmore, Aldia ho-S.....Silver City
Erickson, Anna c-V.....Logan
Erickson, A. Leroy a-J.....Logan
Erickson, Elgin W. c-S-Fed-ss.....Sandy
Esplin, Vera ho-ss.....Orderville
Evans, Eugene H. aema-V-Fed.....Fort Hall, Idaho
Evans, Farrell a-F.....Price

Evans, Glenn A. c-j.....Price
Evans, Minnie bas-ss.....Spanish Fork
Evans, Sue F. Harris bas-J.....Logan
Everton, Marion K. bas-So.....Logan
Ewing, Matt aema-F.....Smithfield
Fahey, Tom c-F.....Ogden
Falslev, Marinus J. aema-V-Fed-ss.....Logan
Farley, Albert S. a-s--Fed.....Durango, Colorado
Farnes, Jean bas-ss.....Logan
Farnsworth, Charles H. c-J-Fed.....Blackfoot, Idaho
Farnsworth, James S. c-F.....Ogden
Faucett, J. R. a-S.....St. George
Faylor, Thelma O. ho-F.....Logan
Featherstone, Zen bas-F.....Logan
Feldman, Edmund aema-G-ss.....Logan
Felt, Arthur W. aema-V.....Logan
Felt, Joseph E. bas-J-ss.....Logan
Fenton, Robert L. a-G-ss.....Pleasant Grove
Fenton, Villa bas-F.....Salt Lake City
Ferguson, Howard R. aema-V.....North Logan
Fife, Alon aema-V.....Logan
Fife, Ila ho-S.....Logan
Fife, James Milton bas-S.....Logan
Fillerup, Irva bas-ss.....Logan
Fisher, Louise ho-ss.....Ogden
Fisher, Emma bas-ss.....Richmond
Finlayson, F. E. bas-J.....Logan
Flowers, W. J. aema-ss.....Logan
Fogelberg, Nephtune c-F.....Logan
Folkman, David aema-V.....North Logan
Folkman, Joseph T. a-V-Fed-ss.....Logan
Follett, Orion N. aema-V.....Logan
Fonnesbeck, Carl M. aema-F.....Logan
Fonnesbeck, Maya M. bas-F.....Brigham
Ford, John W. c-J-Fed-ss.....Peru, Illinois
Ford, Merrill Card c-So.....Malad, Idaho
Forsgren, J. Clifford a-S.....Providence
Fortie, Jewett A. a-Un.....Boneta
Fowles, Joseph D. aema-S-Fed-ss.....Burley, Idaho
Fowles, Mae, bas-ss.....Ogden
Foxley, Edward G. aema-F.....Logan
Francis, Edward G. aema-F.....Logan
Francis, Neil G. aema-F-Fed-ss.....Spanish Fork
Frandsen, Waldo aema-F.....Price
Frederick, Harold a-So.....Logan
Free, Josephine ho-S.....Salt Lake City
Frink, Margery bas-ss.....Tipton, Iowa
Frischknecht, Carl a-J.....Manti
Froerer, David L. aema-Fed-ss-J.....Logan

Frederick, Elfriede bas-G-ss.....Logan
Fredrickson, Martha bas-ss.....Logan
Frost, T. Anthony c-S.....Ephraim
Frost, Leah bas-F.....Kanab
Fry, Mabel N. bas-S.....Logan
Fry, Verle N. bas-S.....Logan
Fuhriman, Walter U. a-J.....Providence
Fuller, Willard a-So.....Murray
Funk, Claudia bas-S.....Richmond
Furlong, Arlo bas-F.....Huntington
Gardner, Bertrand R. a-J.....West Jordan
Gardner, George a-G-ss.....Logan
Gardner, J. Obed a-F.....Afton, Wyoming
Gardner, Marion ho-J.....Afton, Wyoming
Garner, Hazel ho-V.....Logan
Garner, Ray D. a-S-Fed.....Rexburg, Idaho
Garrett, Eleda bas-ss.....Nephi
Garrett, Samuel R. aema-V-Fed.....Salt Lake City
Gassman, Walter c-So.....Logan
Gavina, Antonio B. aema-ss.....Bangar, LaUnion, P. I.
Geddes, Elmer S. c-Fed-ss.....Logan
Geddes, Lenald bas-ss.....Logan
Geddes, Martha bas-S.....Logan
Geddes, William c-F.....Logan
Gibbs, Leora bas-ss.....Logan
Gibbs, Lee aema-F.....Brigham
Gibson, Arthur E. aema-So.....Price
Gills, Edward a-F.....Sandy
Gimlin, Frank c-So.....Ogden
Glade, Harold W. c-F.....Mink Creek, Idaho
Glauser, Alfred c-V.....Logan
Glover, Maude bas-ss.....Brigham
Goates, Floyd W. aema-F.....Lehi
Goates, John E. aema-V-Fed-ss.....Lehi
Goodsell, Dean C. c-So.....Logan
Goodsell, Violet ho-J.....Logan
Gordon, Coral bas-F.....Smithfield
Gordon, Edith bas-S-ss.....Smithfield
Gospill, Howard W. a-S.....Milford
Gowda, R. Nagan a-G.....Hospet, India
Graff, George E. aema-V-Fed-ss.....Cannonville
Graham, Cleod E. a-V-Fed.....Smoot, Wyoming
Grant, H. E. bas-S.....Garland
Greaves, Ethelyn O. bas-G-ss.....Logan
Green, Earl H. a-V-Fed-ss.....Mona
Greene, Hortense bas-So.....Layton
Greene, Nathan c-F.....Logan
Green, Thomas F. c-F.....Logan
Greenhalgh, Alma c-J.....Logan

Gregory, Fred E. a-J-Fed.....Dolores, Colorado
Griffin, Amos bas-G-ss.....Newton
Griffin, Lorin W. a-Fed-ss.....Escalante
Griffin, Grace bas-ss.....Logan
Griffin, Louis c-J.....Ogden
Griffiths, Robert E. c-J.....Smithfield
Gubler, Albert aema-V.....Lund, Nevada
Gubler, Emma ho-ss.....Santa Clara
Gundersen, Howard aema-So.....Murray
Gurell, Gladys bas-ss.....Logan
Gurell, Norbert A. aema-S-Fed-ss.....Randolph
Hadfield, Beth V., ho-F.....Salt Lake City
Hadfield, Edward Wm. a-S.....Salt Lake City
Haddock, Lowella ho-F.....Ogden
Haight, Ione c-F.....Logan
Haight, Maybell bas-F.....Oakley, Idaho
Hales, H. Lee a-S.....Logan
Hall, C. Leroy bas-So-ss.....Hyrum
Halversen, Roy bas-J.....Paradise
Hamilton, Melvin a-F.....Salt Lake City
Hammond, H. L. aema-F.....Providence
Hammond, Owen Cyril c-S-ss.....Logan
Hancey, J. Everett bas-J-ss.....Hyde Park
Hansen, Alton bas-So.....Paradise
Hansen, Amelia bas-So.....Blackfoot, Idaho
Hansen, Clarence D. c-F.....Logan
Hansen, DeVeda bas-ss.....Ephraim
Hansen, Elmer S. a-V-Fed-ss.....Paradise
Hansen, Everett aema-F.....Monroe
Hansen, Frank E. aema-V.....Logan
Hanson, Gladys ho-V-ss.....Bountiful
Hansen, Gwendolyn bas-ss.....Providence
Hansen, Lina bas-So.....Richfield
Hansen, Lincoln T. c-V.....Salt Lake City
Hansen, Myron T. bas-J.....Collinston
Hansen, Nellie Page ho-V.....Logan
Hansen, Wilford a-F.....Richfield
Harding, George D. bas-G-ss*.....Logan
Harding, Josiah Frank aema-Fed-ss.....Magna
Harding, Mary bas-F.....Malad, Idaho
Hardy, Leon c-G.....Logan
Harmon, Frank N. bas-G-ss.....Orderville
Harmon, Lillie E. ho-ss.....Orderville
Harris, Charles bas-J.....Tremonton
Harris, Ervin C. c-So.....Logan
Harris, Evan a-F.....Richmond
Harris, George bas-F.....Richmond
Harris, Iona bas-So.....Evanston, Wyoming
Harris, Karl a-G.....Logan

Harris, Joseph Ruel bas-F.....Logan
Harris, Sterling R. c-S.....Logan
Harward, Bert O. c-So-ss.....Willard
Hatch, Adrian W. c-F-ss.....Logan
Hatch, Ina Porter bas-F-ss.....Franklin, Idaho
Hatch, Lorenzo H. c-G-ss.....Franklin, Idaho
Hatch, Olive B. c-ss.....Logan
Hatch, Theron bas-V.....Randolph
Hatch, W. M. c-J.....Logan
Hathaway, Jesse P. a-V-Fed-ss.....Monte Vista, Colorado
Hauser, Veda bas-ss.....Trenton
Havertz, Joseph aema-F.....Logan
Haws, Gladys, ho-V.....Logan
Haws, Mabel ho-V.....Logan
Hawley, Luell c-S.....Richfield
Hayward, Ira N. bas-S-ss.....Logan
Heaton, Mona P. ho-S.....Orderville
Heaton, Terrence bas-J-ss.....Orderville
Hemphill, Ernest C. a-V-Fed-ss.....Hayden
Hendricks, Abbie bas-S-ss.....Richmond
Hendricks, Caroline M. bas-ss.....Logan
Hendricks, C. Durrell c-J.....Logan
Henrie, Irvin L. a-G-ss.....Manti
Hess, Russell Lee bas-J.....Logan
Hickman, Leon M. bas-J.....Logan
Hickman, Lorea L. bas-ss.....Logan
Hickman, Radino S. c-S.....Logan
Higginson, Vernon aema-F.....Chesterfield, Idaho
Hill, Francis L. c-F.....Logan
Hillyard, Lowell A. aema-V.....Smithfield
Hirst, C. Merlin aema-So.....Logan
Hirst, Lester bas-J.....Logan
Hitzker, Albert J. aema-S-Fed-ss.....Winona, Minnesota
Hogan, Fred D. c-F.....Lewiston
Hogenson, Doloris ho-F.....Logan
Hogenson, Lydia B. ho-V.....Logan
Hokanson, Owen bas-ss.....Thayne, Wyoming
Homer, Charles M. a-J.....Burley, Idaho
Holton, Grant J. aema-Fed-ss.....Brigham
Hone, Leila bas-ss.....Brigham
Hopkin, Alonzo a-F.....Crayden
Hopkins, Lenore ho-V.....Devils Slide
Horsley, Edith bas-F.....Brigham
Horsley, Philip aema-F.....Price
Hortin, Paul aema-F.....Oakley, Idaho
Hortin, Reed aema-F.....Oakley, Idaho
Hosner, James J. aema-V-Fed-ss.....Montrose, Colorado
House, W. G. aema-J-Fed-ss.....Denver, Colorado
Howard, Maud bas-J.....Huntington

Howe, Earl E. c-F.....Murray
Howe, Velma bas-J-ss.....Provo
Howell, Wesley G. bas-S-ss.....Logan
Howells, Joseph S. bas-ss.....Paradise
Hoyt, Wilmer a-F.....Marion
Hubbard, M. E. bas-ss.....Salt Lake City
Hughes, Gladys bas-ss.....Mendon
Hull, Clella ho-F.....Logan
Hull, Irvin c-So.....Hooper
Hull, Robert R. a-J.....Hooper
Hull, Wealthy bas-So.....Logan
Hulme, Rita bas-J.....Logan
Hunt, S. Ross aema-V.....Snowflake, Arizona
Hunter, Genevieve ho-F.....Lewisville, Idaho
Hunter, Flen F. c-F.....Smithfield
Hunter, Glen F. c-F.....Smithfield
Hunter, W. Spencer a-S.....Lewisville, Idaho
Hurren, David C. c-F.....Hyde Park
Hussey, Norma ho-S.....Ogden
Hyde, O. Wendell aema-S.....Logan
Hyer, Ralph J. a-F-Fed.....Lewiston

Irving, Jack c-So.....West Jordan
Isbell, Percy L. aema-V-Fed-ss.....Richfield
Israelsen, Stella P. bas-ss.....Hyrum
Israelsen, Vernon L. bas-ss.....Hyrum
Ivins, Carol bas-ss.....Lund, Nevada
Ivins, Loraine R. a-S.....Lund, Nevada

Jackson, Dorrell P. a-G-ss.....Lewiston
Jackson, Leroy aema-V-Fed-ss.....Pueblo, Colorado
Jackson, Lila G. bas-ss.....Kamas
Jackson, William bas-So.....Park City
Jacobs, Louise bas-F.....Rexburg, Idaho
James, Grace bas-F.....Logan
James, LeRoy c-F.....Paradise
James, Mae bas-ss.....Paradise
Jeffs, Armond bas-J.....Logan
Jenkins, Alton bas-So.....Logan
Jenkins, Alice bas-So.....Logan
Jenkins, Archie L. bas-ss.....Newton
Jensen, Albert H. a-V.....Manti
Jensen, Clifford M. a-S-Fed-ss.....Brigham
Jensen, Ether aema-V.....Mendon
Jensen, Evelyn bas-V.....Logan
Jenson, Irving a-G.....Bozeman, Montana
Jensen, Kindon R. aema-V.....Richfield
Jensen, Leslie O. a-Un-Fed-ss.....Manti
Jensen, Mary bas-V.....Brigham
Jensen, Milton B. bas-ss.....Mendon

Jensen, Naomi M. ho-J ..... Manti
Jensen, Phebe bas-ss ..... Manti
Jensen, Phyllis bas-F ..... Manti
Jensen, Ruel L. c-Un ..... Huntington
Jensen, Vernal Jensen bas-Fed-ss ..... Providence
Jensen, Viola M. bas-F ..... Huntsville
Jeppesen, Donald bas-F ..... Geneva
Jeppeson, Edvenia bas-ss ..... Brigham
Jeppson, Elmer bas-F ..... Geneva
Jeppson, Ernest bas-So ..... Geneva
Jeppson, Robert B. a-S-Fed-ss ..... Logan
Jerman, I. Donald aema-G ..... Santaquin
Jessop, Beatrice bas-ss ..... Logan
Jewett, Robert A. a-V-Fed ..... Salt Lake City
Johnson, Carl B. bas-ss ..... Richmond
Johnson, Clover bas-S-ss ..... Logan
Johnson, Edith ho-So ..... Preston, Idaho
Johnson, Floyd H. aema-V ..... Collinston
Johnson, Rolla V bas-ss-Un ..... Logan
Johnson, Rulon bas-F ..... Huntington
Johnson, Vivian ho-So ..... Preston, Idaho
Johnston, Afton bas-S ..... Hooper
Johnston, Mavis bas-J ..... Hooper
Johnston, Paul A. a-Fed-ss ..... Torrington, Wyoming
Jonas, W. N. c-ss ..... Logan
Jones, Aaron S. aema-S-Fed-ss ..... Salt Lake City
Jones, Bliss Ivins bas-S ..... Logan
Jones, Daniel O. c-So ..... Malad, Idaho
Jones, G. Allen a-F ..... Henefer
Jones, Harley L. aema-V-Fed-ss ..... Powell, Wyoming
Jones, Henry D. a-So ..... Malad, Idaho
Jones, Jennie bas-J ..... Heber City
Jones, Lawrence W. a-S ..... Monroe
Jones, Mary C| bas-G-ss ..... Salt Lake City
Jones, Richard E. a-V ..... Henefer
Jones, Sylvester c-J ..... Malad, Idaho
Jorgensen, Osmond O. c-So ..... Logan
Juckett, Elmer E. a-V ..... Salt Lake City
Judah, Courtney aema-So ..... Logan
Justesen, Bernice bas-ss ..... Spring City
Karren, Lawrence L. c-So-Fed-ss ..... Salt Lake City
Keller, Allen D. bas-ss ..... Logan
Keller, Melvin M. a-So-ss ..... Mink Creek, Idaho
Kelley, John H. aema-V-Fed-ss ..... Price
Kennard, Frank bas-S ..... Logan
Kennard, Gleason a-J ..... Logan
Kidd, William D. c-F ..... Logan
Kidgell, Ariel B. c-V-Fed ..... Logan

Kilburn, H. Parley bas-ss ..... Morgan
Kimball, Harry T. aema-Fed-ss ..... Logan
Kimball, Ralph W. aema-Fed-ss ..... Logan
Kimball, Vernal A. bas-F ..... Smithfield
King, Emma ho-So ..... Kamas
King, John J. aema-V ..... North Logan
King, Phyllis bas-So ..... Ogden
King, Ralph T. bas-S-Fed-ss ..... Logan
Kirk, Harvey a-S ..... Tooele
Kirkbride, J. W. bas-G-ss ..... Smithfield
Kirkup, William aema-V ..... Logan
Knight Roma bas-So ..... Plain City
Knowles, Willard B. bas-S ..... Logan
Knowlton, George F. a-G-ss ..... Salt Lake City
Kotter, Gertrude bas-ss ..... Brigham
Kotter, Horace c-S ..... Brigham
Kotter, Guinivere bas-J ..... Brigham

Lambert, Albert V. a-V-Fed ..... Panguitch
Lambert, J. Carlos a-G-ss ..... Metropolis, Nevada
Larson, Constance ho-F ..... Smithfield
Larsen, E. N. bas-G-ss ..... Hyrum
Larsen, Eva c-ss ..... Hyrum
Larson, Harold aema-V ..... Preston, Idaho
Larson, James aema-V-Fed-ss ..... Bingham Canyon
Larson, Lee aema-V ..... Preston, Idaho
Larsen, Lucile bas-J ..... Logan
Larsen, Lyman G. bas-ss ..... Castle Dale
Larsen, Mainard aema-F ..... Smithfield
Larson, Melva bas-J-ss ..... Logan
Larsen, Merlin J. bas-So ..... Preston, Idaho
Larsen, Myrtle V. bas-ss ..... Logan
Larsen, Newell aema-V ..... Geneva
Larson, Rudolph V. bas-G-ss ..... Smithfield
Larsen, Teresa bas-ss ..... Logan
Last, Charles Henry bas-ss ..... Lewiston
Last, Thomas a-F ..... Lewiston
Lathrop, Fred H. aema-V-Fed ..... Logan
Lau, Ruth bas-ss ..... Soda Springs, Idaho
Lawrence, Alvin James aema-Fed-ss-V ..... Richmond
Law, F. Joseph bas-ss ..... Brigham
Layton, Harold H. aema-So ..... Kaysville
Layton, Malcolm B. c-So ..... Kaysville
Layton, Raddon c-F ..... Logan
Leavitt, LaSell c-So ..... Lewiston
Ledingham, C. B. c-J ..... Bountiful
Lee, Blanche bas-So ..... Price
Lee, Ernest R. c-F ..... Hyde Park
LeFever, George aema-V-Fed ..... Akron, Ohio

Lefler, John R. a-ss.....Woodland
Leigh, Wilford c-F.....Cedar City
Lemon, Cleon bas-So.....Willard
Lemon, Melvin bas-J.....Hyrum
Lenkersdorfer, Howard D. c-V-ss.....Logan
Leonard, Ann bas-F.....Huntington
Letham, Angus M. aema-V.....Wellsville
Lewis, Daniel a-V-Fed-ss.....Salt Lake City
Lewis, Dennis bas-ss.....Logan
Lewis, Rulon D. a-F.....Marion
Lillywhite, James E. a-V-Fed.....Monticello
Lindquist, Eva ho-G-ss.....Salt Lake City
Lindquist, Kenneth c-F.....Logan
Lindsay, Cleone bas-ss.....Ogden
Lindsay, Della bas-J.....Heber City
Linford, Hooper a-F.....Logan
Linford, Leon B. bas-G.....Logan
Linford, Maurice B. a-G.....Logan
Little, Florence bas-ss.....Moroni
Logan, John S. aema-S-Fed.....Sharpstown, Maryland
Longhurst, George L. a-J-Fed-ss.....Woodruff
Loose, Clarence C. c-S.....Provo
Lougee, John a-S-Fed.....Sharon, Idaho
Love, Vernon aema-So.....Kaysville
Lowe, Mamie bas-So.....Park City
Lowe, Ora ho-So.....Hooper
Lowe, Oral aema-F.....Smithfield
Lund, Nettie ho-S-ss.....Logan
Lung, K. L. a-G-ss.....Canton, China
Lunt, Anthon a-So.....Salt Lake City
Lyman E. Ray a-S.....Parowan

McAllister, W. W. aema-ss.....Spanish Fork
McArthur, Minnette, bas-F.....ovell, Wyoming
McBride, Claud D. bas-ss.....Clarkston
McCarrey, John a-V.....Richmond
McCulloch, Lawrence L. c-ss-J-Fed.....Logan
McDonald, Howard aema-G-Fed-ss.....Logan
McKean, Edith bas-ss.....Woods Cross
McKellips, Marion c-So.....Provo
McKinnon, Freeman F. bas-J.....Evnston, Wyoming
McKnight, Stanley a-J.....Minersville
McLane, LeRoy a-V-Fed-ss.....Afton, Wyoming
McNeil, Jennetta bas-So.....Logan
Madsen, Hasting aema-V.....Ephraim
Madson, Jack W. c-F.....Ogden
Magleby, Clifford A. a-F.....Richfield
Magleby, Newel a-F.....Monroe
Magleby, Sterling a-F.....Thornton, Idaho

Mallory, Gladys bas-ss ..... Afton, Wyoming
Mallory, J. C. bas-ss ..... Afton, Wyoming
Malmberg, Florence bas-ss ..... Logan
Marshall, Donald L. bas-F ..... Delta
Martineau, Aileen bas-ss ..... Logan
Mason, Olive bas-ss ..... Brigham
Mason, Veda bas-F ..... Willard
Mathews, Clarence a-F ..... Logan
Mathews, Clarissa bas-F ..... Logan
Matthews, Eula ho-F ..... Oakley, Idaho
Matthews, Myrtis bas-F ..... Oakley, Idaho
Maughan, Armenia ho-ss ..... Logan
Maughan, Elsie ho-G-ss ..... Logan
Maughan, J. Howard a-G-ss ..... Cedar City
Maughan, Peter Alton c-F ..... Logan
Maughan, Reese P. bas-ss ..... Wellsville
Maughan, Ruth bas-ss ..... Logan
Maxfield, Helen A. c-ss ..... Delta
May, R. Golden bas-J ..... Logan
May, Lucilla ho-J ..... Logan
Mecham, Wilford L. a-F ..... Morgan
Meek, Gerald R. a-So ..... Preston, Idaho
Merkley, Margret bas-ss ..... Vernal
Merrill, A. A. c-V ..... Richmond
Merrill, Ariel C. a-J ..... Richmond
Merrill, Casper W. a-J ..... Richmond
Merrill, Effie E. ho-G-ss ..... Logan
Merrill, Hattie bas-So ..... Logan
Merrill, Landell S. bas-F ..... Richmond
Merrill, Malcolm H. bas-J ..... Richmond
Merrill, Marriner H. c-So ..... Richmond
Merrill, Milton R. bas-ss-J ..... Logan
Merrill, Ray S. c-S ..... Richmond
Metcalf, Lund bas-ss ..... Bear River City
Metcalf, Margaret bas-ss ..... Bear River City
Metcalf, Roy bas-ss ..... Bear River City
Meyrick, Joseph c-J ..... Logan
Michaelson, DeVere aema-V ..... Smithfield
Michaelson, Lydia bas-ss ..... Afton, Wyoming
Midgley, Alvin Rees a-S ..... Salt Lake City
Miles, Donald O. bas-So ..... Paradise
Miles, Henry J. bas-ss ..... St. George
Miles, Ferris W. c-F ..... Smithfield
Miller, Emma G. ho-F ..... Farmington
Miller, Irvin S. bas-ss ..... Salt Lake City
Miller, James Isaac a-V ..... Newton
Miller, J. M| c-V ..... Providence
Mills, George a-V-Fed ..... Lewiston

Mills, Samuel aema-V.....Lewiston
Mitchell, Edgar B. aema-Un.....Logan
Mitchell, Maude bas-V.....Logan
Monson, O. Wilford aema-So-Fed.....Salt Lake City
Monson, Paul c-So.....Richmond
Monsen, Ray J. a-G-ss.....Payson
Moosman, David D. a-S.....Vernal
Moosman, Efey bas-ss.....Logan
Morgan, Samuel a-G-ss.....Kaysville
Morgan, William Leo a-V-Fed-ss.....Goshen
Morrell, Hattie bas-J-ss.....Hyde Park
Morrell, Marriner c-J.....Hyde Park
Morrill, Eugene L. a-J.....Tridell
Morrill, L. Grant bas-F.....Tridell
Morris, Arthur J. a-G-ss.....Logan
Morris, Dorris A. a-V-Fed-ss.....Gainesville, Texas
Morris, Elgin H. bas-S.....Sandy
Morris, James C .a-Fed-ss.....Salt Lake City
Morris, R. A. Jr. bas-G-ss.....Logan
Morris, Sadio A. ho-G-ss.....Nephi
Mortensen, Hyrum K. a-S.....Thatcher, Arizona
Motsick, Charles aema-V-Fed-ss.....Lingle, Wyoming
Moser, Erwin U. aema-So.....Logan
Mouritsen, Leah c-F.....Logan
Muir, Curtis aema-V.....Heber
Murdock, Clarence a-S.....Heber
Murdock, Douglas a-F.....Heber
Murdock, Phoebe bas-V.....Clearfield
Murray, Seymour B. a-So-Fed-ss.....Wellsville
Nash, David A. aema-V.....Logan
Neeley, Arthur bas-ss.....Brigham
Neibaur, Thomas C. a-V-Fed-ss.....Sugar City, Idaho
Nelson, Carrie bas-ss.....Tower Hill, Illinois
Nelson, Conrad L. aema-V-Fed-ss.....Murray
Nelson, D. H. bas-G.....Logan
Nelson, Ella ho-ss.....Salt Lake City
Nelson, Fidelia bas-ss.....Logan
Nelson, Howard aema-So.....Weston, Idaho
Nelson, J. Wilbur bas-F.....Logan
Nelson, Lawrence M. c-V.....Clearfield
Nelson, Leo aema-V.....Smithfield
Nelson, Leslie W. a-So.....Morgan
Nelson, Myra bas-S.....Logan
Nelson, Naomi ho-S.....Morgan
Nelson, Peter a-G.....Logan
Nelson, Rebecca ho-J-ss.....Logan
Neilsen, Violet c-ss.....Logan
Neves, Audrey E. bas-ss.....Millville

Newton, Fred M. aema-S-Fed-ss.....Logan
Nichols, Mark a-S.....Brigham
Niederhausern, Fred aema-V.....Logan
Nielsen, Clayton C. c-ss.....Hyde Park
Nielsen, Dewey H. aema-V.....Hyrum
Nielsen, Edith ho-S.....Hyrum
Neilsen, Elsine ho-J.....Salt Lake City
Nielsen, Florence bas-J.....Logan
Nielsen, Lillie bas-So.....Logan
Neilson, Preston M. c-J.....Logan
Nielsen, Theon S. aema-V.....Hyde Park
Nish, William R. bas-ss.....Corinne
Noble, Willard a-J.....Smithfield
Norby, Joris C. aema-J-Fed-ss.....Ada, Minnesota
North, Foster bas-So.....Logan
Nuffer, Lloyd aema-F.....Providence

O'Brien, Timothy aema-S-Fed-ss.....Arnprior, Canada
Oberhansley, F. R. a-S-ss.....Logan
Oberhansley, Henry bas-G.....Logan
Oberhansly, Verne bas-G.....Provo
Obray, Ernest S. bas-S-Fed-ss.....Logan
Obray, Clyde bas-ss.....Paradise
Odell, Florence bas-G.....Logan
Ohlwiler, Nellie ho-J.....Heber
Oldham, Delia bas-ss.....Smithfield
Oldham, Mabel bas-ss.....Smithfield
Oliver, Joseph aema-F.....Sandy
Olsen, Alice bas-ss.....Paradise
Olsen, Alfrieda c-F.....Richmond
Olsen, Aaron B. a-Fed-ss-V.....Logan
Olsen, Charles G. aema-F.....Logan
Olson, Claire ho-F.....Ogden
Olsen, Daniel F. aema-G*-ss.....Hulett, Wyoming
Olson, Elvera ho-So.....Salt Lake City
Olsen, Guy c-V.....Logan
Olsen, Harold H. aema-So.....Peterson
Olson, Lillie bas-V.....Logan
Olsen, Lucretia bas-ss.....Bear River City
Olsen, May bas-ss.....Bear River City
Olson, Alvin E. bas-ss.....Brigham
Olson, Oscar W. aema-V.....Logan
Olsen, Retta M. bas-So.....Logan
Olsen, Winnie c-V.....Logan
Ormsby, R. L. ho-Un.....Logan
Ormond, Mae bas-F.....Logan
Osmond, Constance bas-F.....Provo
Osmond, Iona bas-J.....Logan
Osmond, Waldo bas-S.....Logan

Overstreet, Cecil C. aema-So-Fed-ss ..... Grenada, Colorado
Owen, Lucile B. bas-So ..... Logan
Packard, Ivan bas-F ..... Glenwoodville, Canada
Packer, Florence P. ho-V ..... Ogden
Packer, Grant P. a-S ..... Preston
Packer, Oren M. aema-V-Fed ..... Preston
Packer, Pearl ho-V ..... Logan
Page, Adelaide E. bas-F ..... Brigham
Page, Gwendolyn bas-F ..... Brigham
Painter, Robert S. c-So ..... Logan
Park, William J. c-So-Fed-ss ..... Sandy
Parker, T. C. aema-Fed-ss-V ..... Salt Lake City
Parkinson, Don B. c-So ..... Logan
Parry, Ruby T. bas-Un ..... Manti
Parsons, Beatrice bas-ss ..... Newton
Partridge, Edwin F. aema-V ..... Provo
Patrick, Inga A. bas-S ..... Logan
Paxton, LaPreal bas-ss ..... Monroe
Pearce, Rulon C. c-F ..... Montpelier, Idaho
Pearce, Ruth c-So ..... Brigham
Pearson, Essie N. aema-Fed-So-ss ..... Logan
Pectol, Annina bas-ss ..... Teasdale
Pederson, Alice E. ho-S ..... Logan
Pedersen, Alice ho-F ..... Logan
Pederson, Edna c-So ..... Logan
Pedersen, Peter A. C. bas-G-ss ..... Logan
Pedersen, Anton bas-ss ..... Iona, Idaho
Peeples, Claire M. bas-ss ..... Logan
Penfield, Marion G. a-V-Fed-ss ..... Vernal
Peterson, Allie c-J-ss ..... Newton
Peterson, Emma c-F ..... Moab
Peterson, Franklin aema-V-Fed-ss ..... Logan
Petersen, Harold M. bas-F ..... Logan
Petersen, George O. aema-V ..... Ogden
Peterson, Glen H. bas-So ..... Preston, Idaho
Peterson, LaPhene c-J ..... Hyde Park
Peterson, Moylen bas-S ..... Preston, Idaho
Peterson, Ferdinand A. bas-ss ..... Redmond
Peterson, Irene bas-ss ..... Logan
Peterson, Lester E. c-Fed-ss ..... Logan
Peterson, Mell bas-ss ..... Logan
Peterson, Newell C. a-ss ..... Logan
Peterson, Myrtle ho-S ..... Scipio
Peterson, Reba ho-ss ..... Salt Lake City
Peterson, Spencer aema-V-Fed ..... Fillmore
Peterson, Valera Lee ho-ss ..... Logan
Petersen, Verda T. bas-F ..... Logan
Pocock, C. Lester c-F ..... Tooele

Pope, LeRoy B. bas-F.....Randolph
Poulter, Liliuo c-So-ss.....Logan
Poulter, Rhea ho-F.....Ogden
Poultney, Robert a-G-ss.....Logan
Powell, Ethel bas-ss.....Ogden
Powell, Kathleen ho-ss.....Beaver
Pratt, Joseph Wm. a-F.....Colonia Dublan, Mexico
Preston, Mabel A. ho-V.....Logan
Probert, Daniel G. a-V-Fed-ss.....Scipio
Price, Ardath L. a-G-ss*.....Sandy
Pugh, Elizabeth bas-J.....Kanab
Pugh, Cecil C. aema-So.....Kanab
Pugh, Delsa bas-So.....Kanab
Pugmire, Stanford c-F.....St. Charles, Idaho
Pulley, Hamlet C. bas-J.....Logan
Pulley, Orion aema-F.....Logan
Quayle, James W. Jr. a-J.....Logan
Rallison, Robert Leo bas-G-ss*.....Coalville
Rampton, Henry a-F.....Bountiful
Ramsperger, Anna cF.....Logan
Ramsperger, Emma bas-J.....Logan
Ramsperger, Minna c-F.....Logan
Randall, Earl A. a-F-Fed.....Ogden
Randall, Verna c-F.....Ogden
Ranker, Emery a-G-ss.....Glen Ellen, Calif.
Raymond, Lorraine M. bas-So.....Logan
Read, Zelda ho-V.....Smithfield
Reamsnider, Due aema-V-Fed.....Toledo, Ohio
Redden, Richard aema-V-Fed.....Hoytsville
Redden, Nita bas-ss.....Hoytsville
Reece, Sterling J. c-F.....Payson
Reece, Venace bas-F-ss.....Brigham
Reed, Joseph aema-G-ss.....Logan
Reed, Reta bas-J.....Logan
Reich, Ben a-Fed-ss.....Vernal
Reid, Dalton M .a-G.....Abraham
Reid, Mildred bas-F.....Lund, Nevada
Rencher, John U. a-S.....Swan Lake, Idaho
Rex, Eldon a-J.....Logan
Rice, James c-So.....Farmington
Rice, Jane ho-F.....Logan
Rich, Lyman H. a-J-ss.....Logan
Rich, Elwood c-F.....Logan
Rich, Moses L. c-J.....Logan
Richards, Iva Lucile bas-S.....Logan
Richard, Lorenzo A. bas-So.....Brigham
Richards, Melvin a-F.....Brigham
Richards, Stella bas-ss.....Vernal

Richardson, Stanley S. a-J ..... Sandy
Rider, Marguerite bas-ss ..... Logan
Rider, Mildred bas-F ..... River Heights
Riddell, Donald H. aema-V ..... Deeth, Nevada
Riley, J. Conway a-V-Fed-ss ..... Huntington
Rippon, Elmer J. aema-F ..... Coalville
Rippon, Frank bas-ss ..... Coalville
Riter, John Randolph bas-So ..... Logan
Robbins, LaVon aema-So ..... Weston, Idaho
Roberts, Benson aema-V-Fed-ss ..... Weiser, Idaho
Robertson, Faye ho-F ..... Moab
Robinson, Lamond W. a-J ..... Logan
Robinson, Marguerite ho-F ..... Fielding
Rochel, Albert a-Fed-ss ..... Altoona
Rogers, Edward V. a-Fed-V ..... Denver, Colorado
Rose, Virginia bas-ss ..... Malad, Idaho
Rogers, Theodore bas-ss ..... Fillmore
Rosengreen, Harold N. bas-ss-G ..... Logan
Rosengreen, Ira bas-F ..... Logan
Roskelley, Elizabeth bas-ss ..... Smithfield
Roskelley, Marriner a-ss ..... Smithfield
Rudy, Czar F. a-V-Fed-ss ..... Ft. Duchesne
Russell, Howard R. aema-J ..... Springville

Sanders, Newell c-F ..... Kaysville
Savage, Blanche bas-ss ..... Logan
Savage, Willis a-ss ..... Hyrum
Schank, Leroy C. a-S ..... Providence
Schaub, Ruth M. ho-So ..... Logan
Schaub, Vesta bas-F ..... Logan
Scheby, Vera ho-ss ..... Logan
Scholes, W. B| bas-F ..... Logan
Seegmiller, Carlos W. bas-S-ss ..... Ogden
Seegmiller, C. R. a-Fed-ss ..... St. George
Sessions, Alice ho-S-ss ..... Logan
Sessions, Alwyn C. a-S ..... Logan
Sessions, Sarah ho-J ..... Logan
Sevy, V. M. a-F ..... Panguitch
Shamhart, Katherine c-V ..... Logan
Shaw, Clarke C. a-S-Fed-ss ..... Myton
Shaw, Mary bas-G-ss ..... Logan
Shepard, Dorothy bas-S ..... Logan
Shirwood, Lawrence a-G-ss* ..... St. Johns, Arizona
Sibbett, Goldie c-ss ..... Wayan, Idaho
Simpson, Charles O. bas-So ..... Logan
Sims, Thomas E. a-Fed-ss ..... Garden City
Sinnard, William L. aema-V-Fed ..... Denver, Colorado
Skaggs, Frank aema-V-Fed-ss ..... Boise, Oklahoma
Skanchy, Alphonso O. bas-J ..... Logan

Skidmore, Albert Leroy a-F.....Delta
Skinner, C. H. aema-V-Fed.....Moriarty, New Mexico
Skinner, Joseph Frederick a-G-ss.....Spanish Fork
Slaugh, Albert aema-V.....Vernal
Slaugh, Kimball a-J.....Vernal
Smith, Ardella Bell bas-S.....Logan
Smith, Byron J. bas-S.....Logan
Smith, Charles H. a-V.....Ogden
Smith, Clyde a-So.....Bountiful
Smith, Delmer E. a-S-ss.....Beaver
Smith, Denton c-S.....Logan
Smith, Edith D. ho-F.....Logan
Smith, Edwin a-G-ss.....Grace, Idaho
Smith, Farrell a-S.....Redmond
Smith, G. Gibbs a-F.....Logan
Smith, Gladys ho-V.....Salt Lake City
Smith, J. Russell bas-F.....Richmond
Smith, Kenneth E. c-F.....Logan
Smith, LaVon G. bas-ss.....Logan
Smith, Lola ho-So.....Vernal
Smith, Lucy bas-F.....Vernal
Smith, Marjorie bas-J.....Logan
Smith, Myrtle bas-F.....Logan
Smith, M. W. a-G-ss.....Parowan
Smith, Norma ho-S.....Salt Lake City
Smith, Norma E. bas-F.....Logan
Smith, Ralph A. bas-ss.....Logan
Smith, Rufus R. a-Fed-ss-V.....Grand Junction, Colorado
Smith, Rulon c-G-ss.....Logan
Smith, S. Cooper a-J.....Logan
Smith, Veda C. bas-S.....Smithfield
Smith, Vernal a-F.....Lewiston
Sorensen, Ada ho-So.....Logan
Sorensen, Gordon W. aema-V.....Centerfield
Sorensen, Emma B. ho-G-ss.....Payson
Sorenson, Lawrence J. bas-S.....Logan
Sorenson, Philip H. aema-S-Fed-ss.....Ogden
Spackman, Rose bas-ss.....Lewiston
Spande, Ruth bas-ss.....Logan
Spande, Sibyl E. bas-G-ss.....Logan
Spencer, Pearl bas-J.....Logan
Spenny, Addison L. aema-S-Fed-ss.....Logan
Spenst, Effie bas-ss-V.....Logan
Spenst, Hazel bas-So.....Logan
Spenst, Lila bas-ss.....Logan
Sperry, Leo aema-V-Fed-ss.....Salt Lake City
Staker, Ernest V. a-G.....Mt. Pleasant
Standing, Arnold R. a-J.....Logan

Stanger, Vera ho-J.....Idaho Falls, Idaho
Stanrod, Melvin L. aema-V.....Logan
Stanton, Earl F. aema-V-Fed.....Mound, Minnesota
Stayner, Irene bas-F.....Farmington
Starr, LeRoy A. a-S.....Springville
Starr, Stewart B. c-F.....Springville
Stauffer, Lynn aema-F.....Mendon
Stembridge, Gordon a-F.....Oakley, Idaho
Stevens, Charles H. aema-F.....Logan
Stevens, Frank c-F.....Brigham
Stevens, Guy P. a-So.....Logan
Stevens, Justus M. bas-S-ss.....Logan
Stevens, Lydia bas-ss.....Logan
Stewart, Maude K. bas-ss.....Logan
Stewart, Dean bas-So.....Springville
Stewart ,George a-G.....Logan
Stewart, Vera bas-ss.....Logan
Stock, Owen Kay aema-V.....Fish Haven, Idaho
Stock, Josephine ho-G.....Logan
Stoker, Bertha bas-F.....Clearfield
Stoor, Elsie c-s.....Wayan, Idaho
Sumner, Vincent c-F.....Price
Sumsion, Spafford a-J.....Chester
Sutherland, Allene ho-J.....Logan
Sutherland, Francilda ho-J.....Logan
Sutton, David Wright c-F.....Logan
Sutton, Florence c-F.....Logan
Swanson, Harry N. a-Fed-ss.....Henderson
Syme, Louise ho-F.....Rock Springs, Wyoming

Tanner, A .E. a-ss.....Payson
Tanner, Florence c-V.....Logan
Tarbett, Katherine bas-So.....Logan
Terry, Victor L. bas-J.....Hinckley
Teshirogi, Harry a-S.....Salt Lake City
Thain, J. Henry c-J.....Logan
Thain, Theodore E. c-F.....Logan
Thain, William R. c-F.....Logan
Thalman, Olive c-So.....Chilly, Idaho
Thalman, Ray R. a-So.....Chilly, Idaho
Thatcher, Hannah bas-ss.....River Heights
Thatcher, Ida bas-F-ss.....Logan
Thatcher, Lettie bas-ss.....Logan
Thatcher, Lionel c-J.....Ogden
Thatcher, Martha bas-J.....Logan
Thomas, Ellen bas-F.....Logan
Thomas, Eloise bas-F.....Logan
Thomas, Frances bas-So.....Logan
Thomas, Floyd bas-So.....Ogden

Thomson, Lenore bas-ss.....Ephraim
Thompson, Ezra C. aema-Fed-S-ss.....St. George
Thompson, Elmer J. bas-So.....Hyrum
Thompson, Frank W. c-So.....Filer, Idaho
Thompson, Harold ho-V.....Richfield
Thomson, Nolan T. bas-F.....Richmond
Thomson, Leonard a-G-ss.....Ephraim
Thornley, Wilson R. bas-So-ss.....Smithfield
Thorley, Irene ho-G-ss.....Cedar City
Thurber, D. Pratt a-S-ss.....Logan
Tingey, D. C. a-G.....Logan
Tingey, Mabel A. bas-S-ss.....Brigham
Tingey, Teresa bas-So.....Salt Lake City
Tingey, Thelma bas-So.....Brigham
Tittensor, Russell aema-V-Fed-ss.....Bedford, Wyoming
Tolman, Lloyd S. bas-S.....Richmond
Toolson, John Max aema-V.....Smithfield
Traveller, Ariel a-F.....Richmond
Tracy, Erma bas-ss.....Ogden
Trask, James aema-S-Fed.....Denver, Colorado
Triplett, Tosso M. aema-V-Fed-ss.....Cody, Wyoming
Tueller, Lamont a-J.....Paris, Idaho
Turley, E. C. a-ss.....Colonia Juarez, Mexico
Vauterlaus, Ernest H. aema-V.....Providence
Vernon, Weston J. c-J.....Logan
Vickers, Wallace J. bas-G.....Logan
Victor, R. M| aema-F.....Brigham
Wadsworth, Harold M. aema-So.....Logan
Wagoner, Margaret c-F.....Meridian, Idaho
Wagstaff, Arthur J. a-So.....Murray
Wahlen, LaReta bas-ss.....Hyrum
Walker, Dilworth a-G-ss.....Rexburg, Idaho
Walker, Reed bas-F.....Hinckley
Walker, Wallace O. bas-F.....Eden
Walker, Vance D. bas-ss.....Mendon
Wall, John E. a-S.....Logan
Wall, Ada R. ho-ss.....Logan
Wallace, Dosia W. a-V-Fed.....Harwood, Missouri
Wallwork, Ora bas-ss.....Trenton
Walsh, Thomas J. aema-V-Fed.....Pittsburg, Penn.
Walther, Gerald J. aema-V.....Elko, Nevada
Walther, William C. aema-V.....Elko, Nevada
Walton, Dewena c-So.....Afton, Woyming
Ward, Eunice ho-F.....Malad, Idaho
Warner, Charlotte ho-J.....Grace, Idaho
Warner, Wm. H. a-F.....Nephi
Watkins, Clara bas-F.....Brigham
Watkins, Mary c-F.....Logan

Wayment, Clair F. aema-F.....Logan
Weatherston, Bertha bas-ss.....Ogden
Webb, Milton c-So.....Richmond
Webb, Verda c-F.....Richmond
Webster, H. Henry c-F.....Cedar City
Webster, Theron aema-V.....Preston, Idaho
Welch, Wilford W. c-J-Fed-ss.....Paradise
West, Grant aema-J.....Brigham
West, Vance M. a-F.....Pleasant Grove
Westfield, James aema-F.....Sunnyside
Whatcott, Clemouth L bas-ss.....Plymouth
Wheelon, Anne c-F.....Twin Falls, Idaho
Wheelon, Ruth c-F.....Twin Falls, Idaho
White, Edna bas-G.....Beaver
White, Hobart G. bas-J.....Beaver
White, Iras bas-F.....Vernal
White, Mildred bas-ss.....Thayne, Wyoming
White, Rodney E. a-V-Fed-ss.....Beaver
Whitehead, Lloyd W. aema-F.....Springville
Whitney, Byron M. aema-S-ss.....Logan
Whittle, G. Clifford bas-F.....Oakley, Idaho
Whornham, George a-ss.....Beaver
Wilcox, Francis R. c-So.....Lehi
Wiley, Mark H. c-So-Fed.....Limon, Colorado
Wilhelm, E. L. aema-V.....Logan
Wilhelm, L. E. aema-V.....Logan
Willey, Theodore a-V-Fed.....Los Angeles, Calif.
Willey, William T. a-Fed-ss.....Salt Lake City
Willesen, W. H. aema-S-Fed.....Clearbrook, Minnesota
Williams, Agnes E. ho-S.....Logan
Williams, Beryl bas-F.....Logan
Williams, David E. bas-ss.....Riverton
Williams, E. L. bas-ss-J.....Logan
Williams, Ramond H. bas-ss.....Ogden
Willie, Vernal a-G-ss.....Mendon
Willmore, Emma R. c-V.....Logan
Wilson, Alma L. a-G.....Farmington
Wilson, LeMoyne C-Un.....River Heights
Wilson, LeRoy V. bas-J.....River Heights
Wilson, Wilburn J. bas-F.....River Heights
Winkel, Anton a-V.....Richfield
Winn, Carl D. aema-Fed-ss.....Lehi
Wiser, H. Verne a-F.....Lewiston
Wittwer, Eldon bas-ss.....Bunkerville, Nevada
Wittwer, Melvin bas-J.....Santa Clara
Wood, Cathryn bas-S.....Logan
Wood, Delores ho-S.....Woods Cross
Wood, Elmer R. bas-F.....Trenton

Wood, Marjorie c-F.....Logan
Wood, Russel bas-ss.....Auburn, Wyoming
Wood, W. Edwin bas-J.....Logan
Woodbury, Leland aema-V.....Lewiston
Woodhouse, Thora ho-F.....Oakley, Idaho
Woodruff, Angus O. a-So.....Smithfield
Woodruff, Oliver C. a-S.....Smithfield
Woods, John O. a-Fed-ss.....Clayton, New Mexico
Woodside, Howard M. bas-J.....Logan
Woodside, Josephine C. ho-J.....Logan
Woodward, Rollo a-J.....Franklin, Idaho
Wooley, Ray c-J.....Grantsville
Wootton, D. A. bas-S.....Tremonton
Worley, Dorothy bas-So.....Logan
Worley, Erma bas-F.....Logan
Worley, Francis H. aema-F.....Logan
Worsley, John H. a-Fed-ss.....Farmington
Wright, Arnold bas-F.....*Blackfoot, Idaho*
Wright, Golden bas-F.....Hinckley
Wright, H. Pratt a-J.....Hinckley
Wyatt, Edna bas-F.....Wellsville
Wyatt, Sidney L. a-So.....Wellsville
Yeates, Marvin J. c-F.....Millville
Yeates, Myrtle bas-ss.....Logan
Young, Francis Marion bas-ss.....Logan
Young, Gerda c-F.....Logan
Young, Karl E. bas-S.....Logan
Young, Mabel B. bas-G.....Logan
Youngberg, Karl J. aema-V-Fed-ss.....Lyman, Wyoming
Zalsman, William a-Fed-V-ss.....Holland, Michigan
Zollinger, Homer aema-V.....Providence

SUMMARY OF ATTENDANCE 1923-1924

	Agriculture		A. E. M. A.		Basic Arts and Science			Commerce			Home Economics	
	Collegiate Civilian	Collegiate Federal	Collegiate Civilian	Collegiate Federal	Collegiate Civilian	Collegiate Federal	Collegiate Women	Collegiate Civilian	Collegiate Federal	Collegiate Women	Collegiate Women	
	Men		Men		Men			Men				
COLLEGIATE												
Graduates	18	....	4	1	8	....	4	6	....	....	1	
Seniors	28	13	6	13	16	2	21	14	1	1	18	
Juniors	31	6	4	4	34	1	23	22	4	4	15	
Sophomores	24	1	14	3	31	....	33	28	2	5	16	
Freshmen	46	2	32	1	34	....	51	50	....	19	29	
Unclassified	2	1	2	....	1	....	3	4	....	....	....	
Total Collegiate Civilian	149		62		124		135	124		29	79	702
Total Collegiate Federal		23		22		3			7			55
TOTAL												757

	Agriculture		A. E. M. A.		Basic Arts and Science			Commerce			Home Economics	
VOCATIONAL	Vocational Civilian	Vocational Federal	Vocational Civilian	Vocational Federal	Vocational Civilian	Vocational Federal	Vocational Women	Vocational Civilian	Vocational Federal	Vocational Women	Vocational Women	
	Men		Men		Men			Men				
Total Vocational	11	31	52	55	3		7	10		6	20	195
Summer Quarter (1923)												451
Total Resident Enrollment												1,403

SUMMARY OF SUMMER QUARTER REGISTRATION.

Graduates	56	18	74		
Undergraduates	217	160	377		
	273	178	451		
Correspondence Department—Men				230	
Women				175	405
Extension Classes—Men				146	
Women				129	275
					2083
Less Names Repeated—Men				192	
Women				41	233
Net Total Registration					1850

ENCAMPMENT AND SHORT COURSES

Farmers' Encampment, Logan—Men	812	
Women	869	1681
Scoutmasters' School		105
Club Leaders' Training School—Boys	69	
Girls	54	123
Net Total Registration at Encampment and Short Courses		1909

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For graduation with honors, apply to
"The committee for graduation with honors".
See Oct 22
See Nov. 19 } 24 Honors May 23, '24

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